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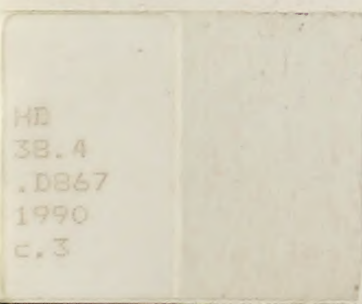
Alaska State Office
222 West 7th Avenue, #13
Anchorage, Alaska 99513

BLM-Alaska Technical Report 14
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September 1990

Ideas to Help in Project Management*

*and resource management plans, human resources skills,
environmental documents, staff work, special projects and more.

Richard F. Dworsky



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TABLE OF CONTENTS

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Ideas to Help in Project Management*

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TABLE OF CONTENTS

Chapter		Page
I.	Concept and Purpose	1
II.	Project Management	
A.	Project Management Concepts	3
B.	Why a Project Management System?	5
C.	What Does Project management Do?	5
D.	Top Management Actions	6
E.	Issuance of a Project Charter	7
F.	Project Management Caution	7
G.	The Project Life Cycle	8
III.	The Project Manager	
A.	Selecting the Project Manager	9
B.	Project Manager Roles and Responsibilities	10
C.	Potential Pitfalls of Projectitis	12
D.	20 Excuses for Poor Project Performance	13
E.	Leaders vs. Bosses	14
IV.	Elements of Project Planning	
A.	The Importance of Planning	15
B.	Project Definition and Objective	17
C.	Brainstorming	19
D.	Developing the Project Plan	19
E.	Outline of the Project Plan	22
F.	Planning Questions	24
G.	Planning Procedures For Projects	24
H.	Tasks and Task Outlines	25
I.	Sources of Planning Information	26
J.	Project Plan Activities Checklist	26
K.	Decision Document Outline	27
L.	Wrapping Up the Project	28
M.	Project Review	28
N.	Concluding the Project	30
V.	Project Schedules and Budgets	
A.	Work Breakdown Structure	33
B.	Milestone Charts	35
C.	Bar Charts	36
D.	Networking and Networks	37
E.	Program Evaluation and Review Technique	39
F.	Full Wall Scheduling	40
G.	Project Scheduling Using Computer Software	41

H.	Comparison of Scheduling Techniques	42
I.	Avoiding Common Pitfalls	43
J.	Budgets	44
VI.	Team Management	
A.	Selection of a Project Staff	45
1.	Resolving Short-Term Problems	46
2.	Resolving Long-Term Problems	46
3.	Staff Implications of Project Team Assignments	47
B.	Employee Accountability	48
C.	Directing	49
D.	Controlling	49
E.	Documentation	50
F.	Keeping a Things-to-do List	51
G.	Delegating	52
H.	Managing Crises Effectively	56
I.	Conflict Resolution	56
J.	Encouraging Feedback	58
K.	Organization Structure	59
1.	Functional Organization	61
2.	Pure Project Organization	62
3.	Matrix Organization	63
L.	Effective team Building	65
M.	Barriers to Effective Team Management and How to Deal with Them	66.
N.	Managing Meetings	68
VII.	Interest Group Participation	
A.	The Participation Process	73
1.	Communication	74
2.	Coordination	75
3.	Consultation	76
B.	Advisory Groups	78
C.	Levels of Responsibility	79
D.	Working with the Media and Writing Effective News Releases	79
E.	Building and Using Mailing Lists/Identifying Potential Participants	80
F.	Organizing Good Newsletters, Fact Sheets, and Other Publications	81
G.	Effective Public Meetings	81
H.	Effective Presentations at Meetings and Hearings	82
I.	Graphical Displays	83
J.	Responsiveness Summaries	84
K.	Budgeting for Public Participation	84

VIII.	Communication and Human Relations	
A.	Speaking Effectively	87
B.	Writing Effectively	88
C.	Using the Telephone Effectively	88
D.	Techniques to Save Time and Block Interruptions	90
E.	How To Get More Done In A Day	91
F.	Motivation	91
G.	Human Relations Techniques	95
1.	Listening	95
2.	Body Language	97
3.	Personal Interest	98
4.	Arguing	99
5.	Tact	100
6.	Communication Channels and Networks	100
H.	Communication Problems	103
I.	Negotiation and Resolving Differences	104
J.	Mediation	105
K.	Panels and Conferences	106
L.	How To Convince Your Boss	107
M.	Working with Negative Thinkers	109

Appendices

A.	District Manager's Concept of Activity Program	111
B.	To-do List	112
C.	Agenda	113
D.	Group Memo	114
E.	Example of Staff Study	115
F.	Formal Talking Paper Format	119
G.	Project Evaluation Form	120

Bibliography	121
---------------------	------------

751	Working with Negative Feedback	100
752	How to Convince Your Boss	100
753	Goals and Consequences	100
754	Methods	100
755	Organization and Learning Outcomes	100
756	Communication Problems	100
757	Communication Channels and Systems	100
758	Tools	100
759	Assessing	100
760	Formal Incentives	100
761	Self-Management	100
762	Learning Outcomes	100
763	Human Relations	100
764	Motivation	100
765	How to Get More Done in Less Time	100
766	Techniques to Save Time and Increase Productivity	100
767	Using the Telephone Effectively	100
768	Writing Effectively	100
769	Speaking Effectively	100
770	Communication and Human Relations	100
771	Learning Outcomes	100
772	Formal Evaluation Form	100
773	Formal Rating from Formal Incentives	100
774	Example of Self Study	100
775	Group Aims	100
776	Agenda	100
777	To-do List and Organization	100
778	Learning Outcomes	100
779	Formal Rating from Formal Incentives	100
780	Example of Self Study	100
781	Group Aims	100
782	Agenda	100
783	To-do List and Organization	100
784	Learning Outcomes	100
785	Formal Rating from Formal Incentives	100
786	Example of Self Study	100
787	Group Aims	100
788	Agenda	100
789	To-do List and Organization	100
790	Learning Outcomes	100
791	Formal Rating from Formal Incentives	100
792	Example of Self Study	100
793	Group Aims	100
794	Agenda	100
795	To-do List and Organization	100
796	Learning Outcomes	100
797	Formal Rating from Formal Incentives	100
798	Example of Self Study	100
799	Group Aims	100
800	Agenda	100
801	To-do List and Organization	100
802	Learning Outcomes	100
803	Formal Rating from Formal Incentives	100
804	Example of Self Study	100
805	Group Aims	100
806	Agenda	100
807	To-do List and Organization	100
808	Learning Outcomes	100
809	Formal Rating from Formal Incentives	100
810	Example of Self Study	100
811	Group Aims	100
812	Agenda	100
813	To-do List and Organization	100
814	Learning Outcomes	100
815	Formal Rating from Formal Incentives	100
816	Example of Self Study	100
817	Group Aims	100
818	Agenda	100
819	To-do List and Organization	100
820	Learning Outcomes	100
821	Formal Rating from Formal Incentives	100
822	Example of Self Study	100
823	Group Aims	100
824	Agenda	100
825	To-do List and Organization	100
826	Learning Outcomes	100
827	Formal Rating from Formal Incentives	100
828	Example of Self Study	100
829	Group Aims	100
830	Agenda	100
831	To-do List and Organization	100
832	Learning Outcomes	100
833	Formal Rating from Formal Incentives	100
834	Example of Self Study	100
835	Group Aims	100
836	Agenda	100
837	To-do List and Organization	100
838	Learning Outcomes	100
839	Formal Rating from Formal Incentives	100
840	Example of Self Study	100
841	Group Aims	100
842	Agenda	100
843	To-do List and Organization	100
844	Learning Outcomes	100
845	Formal Rating from Formal Incentives	100
846	Example of Self Study	100
847	Group Aims	100
848	Agenda	100
849	To-do List and Organization	100
850	Learning Outcomes	100
851	Formal Rating from Formal Incentives	100
852	Example of Self Study	100
853	Group Aims	100
854	Agenda	100
855	To-do List and Organization	100
856	Learning Outcomes	100
857	Formal Rating from Formal Incentives	100
858	Example of Self Study	100
859	Group Aims	100
860	Agenda	100
861	To-do List and Organization	100
862	Learning Outcomes	100
863	Formal Rating from Formal Incentives	100
864	Example of Self Study	100
865	Group Aims	100
866	Agenda	100
867	To-do List and Organization	100
868	Learning Outcomes	100
869	Formal Rating from Formal Incentives	100
870	Example of Self Study	100
871	Group Aims	100
872	Agenda	100
873	To-do List and Organization	100
874	Learning Outcomes	100
875	Formal Rating from Formal Incentives	100
876	Example of Self Study	100
877	Group Aims	100
878	Agenda	100
879	To-do List and Organization	100
880	Learning Outcomes	100
881	Formal Rating from Formal Incentives	100
882	Example of Self Study	100
883	Group Aims	100
884	Agenda	100
885	To-do List and Organization	100
886	Learning Outcomes	100
887	Formal Rating from Formal Incentives	100
888	Example of Self Study	100
889	Group Aims	100
890	Agenda	100
891	To-do List and Organization	100
892	Learning Outcomes	100
893	Formal Rating from Formal Incentives	100
894	Example of Self Study	100
895	Group Aims	100
896	Agenda	100
897	To-do List and Organization	100
898	Learning Outcomes	100
899	Formal Rating from Formal Incentives	100
900	Example of Self Study	100

Chapter I

Concept and Purpose

The overall purpose of this document is to help reduce the time spent on organizing. With limited budgets and increasing workloads, we have to be more efficient and effective in how we organize and manage projects and even the Bureau's day to day business. This document is intended to serve as a "manual of good advice" for managing projects and to provide some insights into management. It presents suggestions, tools, and experiences that can improve BLM's work output.

Projects grow out of problems or opportunities and are a way of life with BLM. When a decision is made to do something about a problem or opportunity, a project is created and someone is given the responsibility for carrying it out. Resource management plans, environmental impact statements, staff studies, and other documents and activities are examples of Bureau projects. Additionally, we sometimes have to solve problems that fall outside the normal Bureau systems. What happens when a project is assigned? How do we organize? What are the problems and potential pitfalls? How do we resolve conflicts and how do we deal with each other? More important, how do we succeed in addressing problems and solutions in a timely way? Last, how do we pass on the skills, knowledge, and tools to others?

This document was conceived when the Alaska Planning and Environmental Coordination Staff had to develop a presentation on project management. We asked if there wasn't a better way to share our experience so new project leaders, managers, and others could have a desk compendium of some basic techniques for managing projects. This document expands upon some of the topics covered in a preplanning contract course and on other guidelines that make for successful project management and make managers successful. These guidelines provide insight into the roles and responsibilities of the project manager and into the field of project management.

As importantly, this document lists ideas, actions, and demonstrations that can set the stage for improving interpersonal relations and can, in turn, improve productivity, performance, and proficiency. While project management connotes the idea of transience because the project is not permanent, the relationships to groups and management and leadership skills are a standard way of conducting business in BLM. A successful project manager or any manager must have a high tolerance

for ambiguity, a good working understanding of management principles, consummate people skills, close identification with the goals of the organization, and the maturity to deal in an open problem solving, face-to-face atmosphere. Therefore this paper examines human resources as a key part of project management and management in general.

This document is a compilation of information for project managers and other managers, but it is not meant to be read from start to finish. Rather, it should be used as a desktop aid. To use this document, find a general topic of interest in the Table of Contents and go to that section. For example, for ideas for effective team building you would turn to page 65. If you are interested in a project plan checklist you might look at the example on page 26. If you have a longer time, you might wish to focus on a specific chapter. Chapters I through VI deal with aspects of project management. Chapters VII and VIII focus on interest groups, the public, and communications. The presentations are in no particular order of importance.

All of the sources of this document are listed in the Bibliography, but specific reference should be made to *Project Management for the Design Professional* by Burstein and Stasiowski, *Project Management—A Systems Approach to Planning, Scheduling and Controlling* by Kerzner, and *Project Management—From Idea to Implementation* by Haynes.

A number of people helped review this and their help is gratefully appreciated. Any errors of commission and omission lie strictly with the author.

Chapter II

Project Management

Project management is something everyone does naturally. Whenever you are planning an addition to your house, or masterminding a surprise party for a friend, you are managing a project. Project management assists in achieving many of our personal and business objectives.

A. Project Management Concepts

Project management can be defined as the function of

1. Selecting the objectives of our enterprise (or project) and the strategy for carrying out the project.
2. Determining the requirements for completing the project.
3. Judiciously allocating the resources at our disposal to complete each job in the project according to a master plan and schedule.
4. Controlling the entire process from point of decision or commitment to completion.

Project management therefore is a way to focus on projects involving many tasks and deadlines, and large staffs and budgets. In BLM such projects take the form of major environmental documents; resource management plans (RMPs); activity plans; and other special studies, plans, and projects. A routine production job generally will not benefit from project management. Project management does not promise successful projects but attempts to define a workable plan, uses the plan to document reality, and tries to foresee important problems or crises before they arise. Several elements are considered imperative for successful project completion:

1. A project team.
2. A phased approach.
3. A performance contract.
4. Standards and procedures.
5. Sign-offs and checkpoints.
6. Project planning and control systems.

A project is an undertaking that has a beginning and an end and can best be described as the planning, scheduling, directing, and controlling of the agency's resources for a relatively short-term project that has been initiated to meet specific goals and objectives. In other words,

projects largely consist of clear guidance and a plan for how and what will be done by whom and when.

Often large in scope and short in duration, these typically complex projects require diverse skills and multiple disciplines. A comprehensive review is often needed as well as coordination at all levels with other government agencies and the private sector. Projects are often controversial and must be completed on a limited budget within a relatively short time.

In many cases a team of specialists is assembled with a designated team leader to complete the job. Since these teams are usually formed outside the normal tables of organization they present special management problems. Except for administrative purposes, they operate as a separate organizational entity. To be successful, projects require a special commitment from top management. BLM's need to emphasize project management should be obvious.

Project management applies a set of principles and methods, for effective planning of objective-oriented work, thereby establishing a sound basis for effective organization, project direction, scheduling, controlling, and re-planning in managing programs and projects.

The project manager is responsible for planning the project. An unplanned project is usually plagued by unmet deadlines, false starts, failed objectives, costly rewrites, and team unrest. The project manager must bring to bear a proper level of organization so that the many individual tasks can be carried out effectively. A typical BLM project has many participants who must be directed so that each is following the project plan. Equally important, a system of controls and feedback must be established to ensure that all project objectives are met.

Project managers must bring together an interdisciplinary team and manage a diverse range of activities from word processing to environmental analysis. They must motivate team members from all parts and levels of the organization to produce their best, often without the authority to require that it be done. Project managers create a vision of the result and articulate the value of completing the project.

Because it is difficult, the importance of project management cannot be overstated. Often, major BLM projects have critical importance to the agency and the user public. Many projects have important social and economic ramifications, and successful project management contributes greatly to the well being of the public and the success of the whole organization.

B. Why Have a Project Management System?

Project management differs from other management in two significant ways. First, project management focuses on a activity with a finite life span, whereas departments or other organizational units expect to exist indefinitely. Second, a project's part-time need for resources can lead to conflicts over sharing resources. A project management system then can assist managers because it:

1. Helps project people adapt and adjust to changing conditions.
2. Recognizes critical areas that need special attention.
3. Assists in crystallizing agreements on major issues.
4. Enables all persons involved in a project to see the whole picture.
5. Helps define responsibility more precisely.
6. Provides a sense of order.
7. Assists in achieving coordination among the parts of the organization and any outside contractors or agencies, to work as a unit to achieve project objectives.
8. Minimizes guesswork.
9. Saves time, effort, and money.
10. Provides higher management with a clear picture of the status and direction of a project.
11. Increases the effectiveness of planning.
12. Assures proper expertise in all aspects of the project.
13. Assures continuity despite turnover.
14. Provides timeframes.
15. Measures accomplishment against current scheduled plans and objectives.
16. Provides for consideration of trade-offs in funds, workers, time, and performance between critical and noncritical areas.
17. Permits rescheduling and provides periodic evaluation of plans.
18. Provides a historical data bank and project models for future planning.

C. What Does Project Management Do?

Probably the most significant benefit provided by project management is the centralization of planning and control responsibilities in one individual. Such centralization includes the following:

Budget Cost Control. If a project has complete definition, it has budgetary responsibility or at least cost control responsibility. The control responsibility can be delegated to subgroups, but it converges at the project manager's office.

Schedules. No cost control program is effective if not coupled with the definitive schedule showing distinct, measurable, identifiable milestones. The complexity of the project will set the detail of this schedule. But a schedule must be a living document, easily understood, previously committed to by its participants, and readily adjusted to reflect project conditions.

Resource Allocation. In addition to money and time, the most important project resources are materials and workers. To succeed, each project requires that some orderly process be followed in procuring materials, equipment, and services.

Technical Quality. Quality is controlled through pre-planning standards, review committees, and supervision of managers and the project manager.

Public Relations. One of the project manager's most important responsibilities is to maintain good public relations. The project manager is the day-to-day contact for the public although top management may from time to time get involved.

D. Top Management Actions

The most important of the many actions that must be taken in implementing project management must be taken by top management. The most significant are

1. Completely selling the project management concept to the entire organization.
2. Choosing the form of the project organization to be used.
3. Issuing a project charter to delineate project versus functional authority and responsibilities.
4. Selecting a project manager.
5. Supplying the project organization with such adequate resources as finances, equipment, people, and computer support.
6. Providing oversight and review at suitable checkpoints.

E. Issuance of a Project Charter

Top management must provide clear direction to the project manager. This direction may be in the form of a charter, which may be a memo or an elaborate working document. In any case, the project organization charter should state the objectives, purpose, and meaning of the organizational activities and ultimately direct the stability of the structure. At the least, the charter must spell out the responsibilities and authority of both project and functional managers. In addition the charter should show, as much as possible, the project manager's relationships with the project's functional managers. In other words, the charter should designate the desired organizational form.

Project managers should be given enough authority to do the jobs they are expected to do. The amount of authority is the question that top management must face. How much of their own authority do they want to delegate, and to what extent do they want to limit the authority and responsibility of the functional manager?

F. Project Management Caution

Project management is not for everyone and should be used only if it is really needed. Other alternatives that provide some of the benefits of project management are as follows:

1. Establishing a "lead" division or discipline within the existing organization with responsibilities to coordinate or sometimes direct activities of the other affected divisions. This measure may work for small projects or in small organizations but does not work for complex problems.
2. Maintaining direct control over the project by top management, which works if top management has the time to get involved.
3. Clearly defining the responsibility and authority of each organizational entity involved in the project. This approach is satisfactory if everyone is willing to cooperate fully.
4. Establishing a project coordinator, who keeps top management informed but is not responsible.

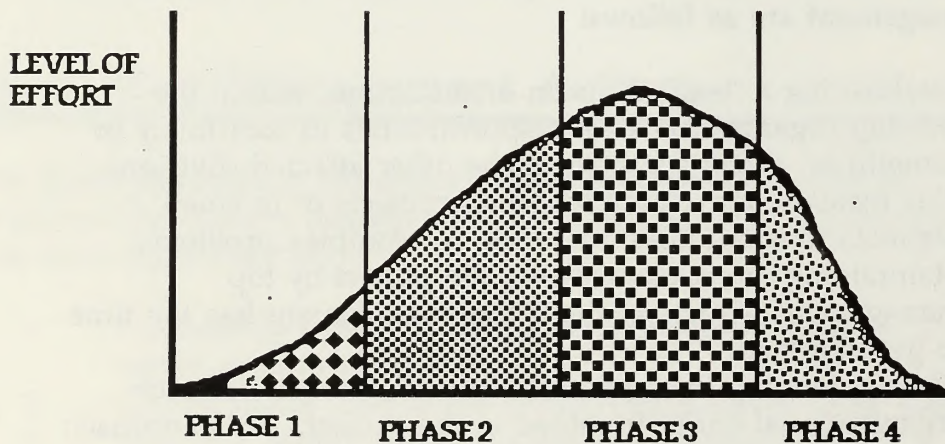
Any one of these organizational alternatives is useful in the right situation, but this call must be made by top management.

G. The Project Life Cycle

Every system, project, or product has certain phases of development. A clear understanding of these phases permits managers to better control their resources to achieve their goals. The phases of development are referred to as life cycle phases. The use of life cycles in project management is not a new concept. Life cycles can be divided into these four phases.

1. PHASE 1. Conceptualization, in which management recognizes the strategic need and explores preliminary goals and availability of resources.
2. PHASE 2. Planning, in which the project is launched and a means of accomplishing the goals is first devised.
3. PHASE 3. Execution, in which the actual work of the project is done.
4. PHASE 4. Termination, in which the project is completed.

The following is a visual representation of the phases of the project life cycle.



Maier's Law: *If the facts do not conform to the theory, they must be modified.*

Chapter III

The Project Manager

Project management calls for appointing one person the project manager, who has responsibility for the detailed planning, coordination, and ultimate outcome of the project. The essence of project management is that it cuts across, and in a sense conflicts with, the normal organization structure. Because the project usually requires decisions and actions from several functional areas at once, the main interdependencies and flow of information in a project are not vertical but lateral. Therefore, within the project's limits, the project manager's responsibility and authority are interfunctional.

A. Selecting the Project Manager

Project Managers (PM's) have the greatest influence on the outcome of projects. Success or failure rests largely on their shoulders. Characteristically, project management duties either attract or deter highly desirable people. Project managers must like trouble, be adept at evaluating risk and uncertainty, and be results oriented. They must recognize problems and try to resolve them before they become serious.

PMs must maintain an atmosphere of trust. They should not make impossible promises to team members. Honesty, integrity, and an understanding of personnel problems can often eliminate problems or conflicts that detract from the working environment. PMs must understand the principles of management, especially those involving the rapid development of temporary communication channels. Good PMs should, however, be more involved with managing a project rather than the project's technical side.

Those general traits and the following specific traits apply not only to PMs, but to the interrelationships of the project team:

1. Command of project technology.
2. Business management competence.
3. Alertness and quickness.
4. Versatility.
5. Energy and toughness.
6. Decision-making ability.

Finding the person with the right qualifications is not easy because project managers are selected more for their personal characteristics than for the job description.

Some of these personal characteristics are

1. Flexibility and adaptability.
2. A preference for significant initiative and leadership.
3. Aggressiveness, confidence, and persuasiveness.
4. Ambition, activity, and forcefulness.
5. Effectiveness as a communicator and integrator.
6. A broad scope of personal interests.
7. Poise, enthusiasm, imagination, and spontaneity.
8. An ability to balance technical solutions with time and cost.
9. Being well organized and disciplined.
10. Being a generalist rather than a specialist.
11. Being able and willing to devote the most time to planning and controlling.
12. Being able to recognize problems.
13. Being able to maintain a proper balance in the use of time.

One of the most important, and often least understood, characteristics of good PMs is the ability to understand and know both their own and their employees' strengths and weaknesses. They must understand human behavior, especially that of employees. Each manager must understand what employees need to do their best:

1. They must know what they are supposed to do, and preferably the result expected.
2. They must have a clear understanding of the extents and limits of their authority.
3. They must know what their relationship with other people is.
4. They must know what result constitutes a job well done.

B. Project Manager Roles and Responsibilities

Technical Supervision - Technical supervision may well be the most important ingredient for successful project management. Team members have no respect for a leader who is not technically proficient. Team leaders must be competent supervisors. A high degree of technical proficiency will dramatically motivate team members.

Project managers should not, however, use their skills to do the team's job. Rather, these skills should be used to guide and direct.

Planning - The purpose of planning is to divide the overall project into elements that can be effectively managed. Project planning is generally used to better define project elements, clearly specify objectives, define the project end, and improve communications about project requirements and changes. Planning is essentially a process of preparing for the commitment of resources in the most economical fashion and allowing this commitment to be made faster and less disruptively.

Organization - Project managers or team leaders should be involved in selecting team members. PMs should also have the responsibility for evaluating the performance Performance Improvement and Position Review (PIPR) of team members, either directly or by providing feedback to the employer and the regular supervisor.

Directing - The project manager is responsible for directing the daily activities of the project, including the coordination and direction of project work with the team, with management, and with anyone else involved.

Controlling - A project is normally controlled through such means as quality reviews, formal progress reporting Management by Objectives (MBO) and informal schedule reviews. Controlling categories are technical quality, budget, scheduling, public land user satisfaction, and regulatory or legal requirements.

Project managers control the steps and perform the following tasks:

1. Determine reasons for problems, including persons accountable.
2. Take preventive action when appropriate.
3. Develop and analyze solutions when appropriate.
4. Act
 - a. If they have enough authority to solve the problem, PMs make the needed decisions.
 - b. If they do not have the authority to solve the problem, PMs elevate the decision to the next level of management with a recommendation as to what the decision should be.
5. Implement decisions.
6. Follow up if necessary.

Budget Management - Project managers should have the opportunity to develop and monitor project budgets and should at least influence budget decisions through BLM's Preliminary Annual Work Plan/Annual Work Plan (PAWP/AWP) process and develop a close working relationship with technical staff and program leaders.

Public Affairs/Communication - Being most familiar with their projects, project managers serve as the main coordination and communication contacts for public affairs, the management team, higher BLM organizational levels, other agencies, and the public.

Evaluation - Evaluating a problem alerts decisionmakers that they must be aware of certain facts and issues where there is a need to:

1. Make a decision to solve a problem or issue that only the boss has the authority to make.
2. Obtain information or advice on a problem or issue about which only the boss has knowledge.
3. Inform bosses of problems or issues to ensure that they aren't surprised when hearing the news from other sources.

Manager's Creed

... learn to have impact without exerting total control, to be helpful without having all the answers, to get involved without demanding centrality, to be powerful without needing to dominate, and to act responsible without squeezing others out.

The Postherioc Leader
by Bradford and Cohen

C. Potential Pitfalls of "Projectitis"

In the *Harvard Business Review*, Paul Gaddis defined "projectitis" as "the seeing of all things as though a particular project were the center of the universe." When observed in World War II, this phenomenon was called "theateritis." In his autobiography *Global Mission*, General Henry H. Arnold remarked that the disease of theateritis- that is, the inability of an Air Force commander to recognize the problems of war in any theater other than his own caused him great concern and trouble in his personal dealings with his top field commanders. But General Arnold noted at the same time that he would not have under his command any general who did not suffer from this disease.

Project managers on their own battleground need a modicum of projectitis to generate the drive and momentum to spark the project to success. These symptoms will be observed by senior management, but they will expect this malady and may themselves suffer outbreaks of it from time to time when they take an interest in a project.

Project managers, however, must learn where to draw the line between project objectives and Bureau objectives. They must understand that when this line is crossed, there is no doubt about which objectives will take precedence. Excessive complaining will not alter that outcome but will only serve to alienate people. Furthermore, project managers often use the need to make sacrifice for the good of the organization as another excuse to rationalize poor performance. But like all other good excuses, this one will not turn a bad project into a good one.

D. 20 Excuses for Poor Project Performance

Of course there are always excuses for poor performance and some of the most common of them are:

1. I had too many other things to do.
2. I didn't have enough time.
3. -----kept making changes.
4. The budget was unrealistic.
5. I couldn't get enough help.
6. Working for that manager is impossible.
7. I couldn't get the information I needed from Information Services.
8. The schedule was unrealistic.
9. -----didn't do the kind of job he or she could have.
10. Everyone kept loading time on the job.
11. -----was taken off the job when I needed him or her most.
12. -----went on vacation at the worst possible time.
13. -----quit and left me holding the bag.
14. I wasn't given enough authority.
15. The planners wouldn't stop planning.
16. The contractor didn't understand the job.
17. The job was unique.
18. The District Office is full of idiots.
19. Principals kept charging time on my job.
20. The consultants wouldn't cooperate.

E. Leaders vs. Bosses

Warren Bennis has a useful definition of the differences between leaders and managers. He states that "leaders do the right thing while managers do things right." This view can also be expanded upon by noticing the differences between a leader and a boss.

Leaders and bosses differ in the following ways:

Inspiring Leader	Suppressive Boss
Encourages	Threatens
Gives credit to team	Takes all the credit
Takes the blame if necessary	Blames everyone else
Stimulates others to think	Wants to do all the thinking
Appreciative	Thankless
Facilitates	Dictates
Listens	Talks
Helps others solve problems	Ignores other's problems
Wants loyalty	Wants obedience
Considers before acting	Impulsive
Assumes the best in others	Assumes worst in others
Tries persuasion	Flaunts authority
Considerate	Tactless
Is fair	Takes advantage of others
Defines requirements and tells why	Tells others what to do
Keeps team informed	Keeps team guessing

Law of Probable Dispersal: *Whatever hits the fan will not be evenly distributed.*

Chapter IV

Elements of Project Planning

An overarching definition of operational planning is useful in project management: planning is determining requirements for project resources and their order of commitment in the operations needed to achieve project objectives.

A. Importance of Project Planning

The major purpose of project planning is to divide broad goals into manageable tasks that can be performed. Because of their relatively short duration and often because control of resources is a priority, almost all projects require formal, detailed planning. Planning, as seen from the operational definition, can be best described as identifying the things we do (the operations); selecting the things we use (the resources); and establishing the policies, procedures, and programs (the conditions) for completing these things. Planning is, of course, decisionmaking since it involves choosing among alternatives. Planning is a way to comprehend complex problems and interacting factors. Planning activities must be integrated because each functional unit may develop its own planning documentation with little regard for other units.

One of the objectives of project planning is to define all work required (generally by preparing a documented project plan) so that each project participant will be able to determine the work required.

Work must be defined in a project environment because

1. If the task is well understood before it is undertaken, much of the work can be planned.
2. If the task is not understood, then more is learned while the task is being done, which, in turn, leads to changes in resource allocations, schedules, and priorities.
3. The more uncertainty, the greater amount of information must be processed to ensure effective performance.

Without proper planning, projects can start "behind the eight ball" because requirements have been poorly defined during the first planning phase. Some have suggested that the following scenario typically occurs as a result of poor planning:

1. Project initiation.
2. Wild enthusiasm.
3. Chaos.
4. Search for the guilty.
5. Punishment of the innocent.
6. Promotion of the nonparticipants.
7. Definition of the requirements.

These are the basic reasons for planning projects:

1. To eliminate and reduce uncertainty.
2. To keep up with rapid changes.
3. To avoid limitations of intuitive reasoning.
4. To improve the operation's efficiency.
5. To better understand the objectives.
6. To monitor and control the work.
7. To provide the stimulating effect of concrete goals.
8. To provide needed lead time to achieve the goals.

Planning is determining what needs to be done, by whom and when, to fulfill one's responsibility. Nine major steps must be developed during the planning phase:

1. Objective. A goal, target, or quota to be achieved by a certain time.
2. Program. The strategy to be followed and major actions to be taken to achieve or exceed objectives.
3. Schedule. A plan showing when individual or group activities will be started and completed.
4. Budget. Planned expenditures required to achieve or exceed objectives.
5. Forecast. A projection of what will happen by a certain time.
6. Organization. Design of the number and kinds of positions, with corresponding duties and responsibilities, required to achieve or exceed objectives.
7. Policy. A general guide for decisionmaking and individual actions.
8. Procedure. A detailed method for carrying out a policy.
9. Standard. An acceptable level of individual or group performance.

Howe's Law: *Every Man has a scheme that won't work.*

B. Project Definition and Objectives

The project manager's job is to ensure that the end product meets the needs of management. Therefore, the project manager must clarify project objectives. Objectives are broad qualitative and quantitative statements of purpose that are always pursued but never completely achieved in time. Objectives continually motivate us as managers and professionals. A good project objective and definition is really a contract that

1. Forces participants to establish the boundaries of the project team.
2. During the project, identifies changes in scope that fall outside the project's boundaries.
3. At the project's conclusion, helps the project manager perform an objective post-implementation review.

The writing of project objectives should be based on the following guidelines:

1. Be consistent with organizational policy and practice.
2. Be measurable and verifiable.
3. Specify only the what and the when, and avoid the how and why.
4. Start with the word TO, followed by an action verb.
5. Specify a completion date.
6. Specify a single key result.
7. Be consistent with resources available or anticipated.
8. Be understandable by those who will be contributing to attaining the required results.
9. Be realistic and attainable and still represent a challenge to subordinates.
10. Be recorded in writing and periodically reviewed.
11. Be communicated not only in writing, but also in face-to-face discussion between subordinates and the project manager.

Project objectives are the key to a successful project. Measurable objectives are preferred because they often can be defined. Since the project objective must be written and must tell the how, where, when, who, and why, this information forms the basis of the project plan. When part or all of the team is assembled, team members can "brainstorm" the elements and procedures for completing the project management plan.

Developing the plan begins with stating the program's objectives. Before work on the program begins the following steps should be taken:

1. The prime objective must be carefully determined and defined.
2. The supporting objectives leading to attaining each prime objective must be carefully determined and defined.
3. The objective must be organized and interrelated to enable overall program objectives to be reached.
4. These objectives must be communicated effectively to operating management in the next lower levels of the organization.

The Objective-FM 100-5, 19 February 1962

Every military operation must be directed toward a clearly defined, decisive and obtainable objective. The ultimate military objective of war is the destruction of the enemy's armed forces and his will to fight. Each intermediate objective must be such that its attainment will most directly, quickly, and economically contribute to the purpose of the operation.

On Strategy
by Harry G. Summers.

Tests that should be used to analyze project objectives include

1. Are they clear?-to whom?
2. Are they specific?- or should they be?
3. Are they attainable?
4. Are they difficult to achieve?
5. Are they consistent with policy?
6. Are they measurable?
7. Have time and dollar figures been attached?

Objectives differ from goals. Goals have the following characteristics:

1. Goals are objectives expressed in a specific dimension.
2. Goals are the targets or the descriptions of the things we want.
3. Goals are the yardsticks by which we measure progress.
4. Goals change from time to time.

C. Brainstorming

Brainstorming is a free-form process that taps the creative potential of a group through association of ideas. We use brainstorming to allow ideas to be proposed and then stimulate new or expanded ideas from others, which in turn leads to more ideas from the group. The following are brainstorming procedures:

1. List all ideas offered by group members.
2. Do not evaluate or judge ideas at this time.
3. Welcome 'blue sky' ideas. It's easier to eliminate ideas later.
4. Repetition is okay. Don't waste time sorting out duplicates.
5. Encourage quality. The more ideas you generate, the greater your chance of finding a useful one.
6. Don't be too anxious to close the process. When a plateau is reached, let things rest and then start again.

Brainstorming can actively assist in developing the project plan.

D. Developing the Project Plan

Project management is a structured planning and controlling process that has distinct phases. These phases include applying the following actions to the plan:

1. Defining
2. Planning
3. Scheduling
4. Implementing
5. Completing

A project's success or failure lies largely in the defining and planning of its phases.

Large, complex programs require a project plan that documents all activities. The plan then becomes a guideline for the life of the project and may be revised, depending upon the circumstances and the type of the program. The project plan serves the following functions:

1. Eliminates conflicts between functional managers.
2. Eliminates conflicts between functional management and the project leader.

3. Provides a standard communicative tool throughout the life of the project. The plan should be geared to the work breakdown structure.
4. Provides a way to find inconsistencies in the planning phase.
5. Provides a means to recognize problems and risks early in the process so that "no surprises occur downstream."
6. Contains all schedules for progress analysis and reporting.

Preparing a project plan can be time consuming and costly. The input requirements for the plan depend on the size of the project and the integration of resources and activities. All levels of the organization participate, with the upper levels providing summary information and the lower levels providing details.

The project plan must state how resources will be integrated. The project plan is a standard against which performance can be measured, not only by the state and district offices, but by program leaders and functional management. The plan defines for all project people during the life of the project what, how, where, when, and why things are done. These plan definitions force a hard look at:

1. Project Requirements.
2. Project Management.
3. Project Schedules.
4. Alternatives.
5. Policy Considerations.
6. Financial Support.
7. Staffing and Organization.
8. Project Scope and Objectives.

One of the most important differences between project management and other work approaches is that project management involves all levels of management in decision-making. The project plan is more than just a set of instructions; it is an attempt to eliminate crises by preventing anything from "falling through the cracks." The plan is documented and approved by all levels of management to determine how all levels should interact, how progress can be tracked, what decisions are needed, and what results can be expected. A project plan should consider some specific questions:

1. Budget—How much money is allocated to each event?
2. Management—How is the program office organized?
3. Procurement Plan—What are my sources? Should I make or buy? If vendors are not qualified, how shall I qualify them?
4. Public Participation Plan—What are the publics? How should I interact with them?

5. Quality Assurance—How will I guarantee that specifications will be met?
6. Scheduling—Are all critical dates accounted for?
7. Training—How will I maintain qualified employees?

As the project matures, the plan is revised to account for new or missing data. The most common reasons for revising a plan are

1. "Crashing" activities to meet end dates.
2. Making trade-offs involving staffing, scheduling, and performance.
3. Adjusting and leveling staffing requests.

The introductory part of the project management plan contains a section on the project definition and the major parts involved, and includes a brief summary of the background and history. The summary and conclusion sections list the program's targets and objectives and must also include the schedule showing how projects and activities are tied together. The total schedule should include the following:

1. A suitable scheduling system (bar charts, milestone charts, networking).
2. A listing of activities.
3. The possible interrelationships between activities, which can be accomplished by logic networks, critical path-network or PERT networks.
4. Activity time estimates, which naturally flow from the Item 3 above.

The summary and conclusion section is usually the second section in the program plan so that management has a complete overview without having to search through the technical information.

The management section of the plan contains procedures, charts and schedules for the following:

1. Assigning key people to the project, usually only the project leader and team members.
2. Personnel, planning, and training to ensure that qualified people will be available from the functional units.
3. A linear responsibility chart to show authority relationships.

As used here, the project plan describes all phases of the project. For many projects, especially large ones, all major events and activities

must be planned in detail. But too much paperwork can easily inhibit successful management.

Once agreed upon by all parties, the project plan is then used to provide project direction. If the plan is written clearly, all functional managers and supervisors should know what is expected of them.

The plan should be distributed to all team members, all functional managers and supervisors involved with the project, and all key functional people. The plan does not contain all answers because then a project office would not be needed. The plan is merely a guide.

Ideally, the whole program is planned; the plan is approved, work is authorized; and the operating phase of measuring, processing, analyzing, and decisionmaking begins. But in practice, a plan is prepared and approved for part of the program, and this particular plan then begins while other parts of the program are still being planned.

Project planning, then, may be called just that, or it could be called preplanning or other names. And it takes many forms, but the following items should always be included:

1. Issues and objectives (brief description of project).
2. Task outline (definition of what is to be done).
3. Schedule (when work is to be done).
4. Staffing (who will do the work).
5. Budget (workmonth cost, procurement).
6. Organization (organization chart and task responsibilities).

E. Outline of the Project Plan

Sample Format -Example A

1. Introduction
 - a. Project plan/charter
 - b. Project manual
 - c. Project review
 - d. Checklist
 - e. Project objectives
 - f. Authorization for project
 - g. Approvals
2. Plans
 - a. Detailed CPM and GANTT Charts (schedules)
 - b. Total project
 - c. Modules

3. Key Participants (staffing)
List of key participants, including name, title, geographical location, authority, responsibility to project and deadlines for completing work.
 - a. Project manager
 - b. Other participants
 - c. Organization chart
 - d. Linear responsibility chart
4. Advisory Groups and Their Roles
5. Outside Parties
 - a. Identification
 - b. What they are supposed to do and when
 - c. Methods of information sharing
6. Correspondence
7. Personnel and Training
 - a. Personnel needs versus time and skill
 - b. Personnel recruitment
 - c. Personnel training plan
8. Materials and Equipment
 - a. Specifications
9. Financial Requirements
10. Security
 - b. Protection of proprietary information
11. Miscellaneous
 - a. Reporting system
 - b. Project review (frequency and checklist)
 - c. Major assumptions about the future and their impact on the project
 - d. Alternatives considered-Impact of project on other projects
 - e. Preventive and contingency plans

Sample Format -Example B

1. Introduction and identification of issues
2. Goals and objectives
3. Expected results
 - a. Purpose of effort
 - b. End product expected
4. Management benefits expected
5. Task outline
6. Coordination needs
 - a. Internal
 - b. External
7. Team member/staffing

8. Schedule
9. Estimated cost/funding by subactivity
10. Workmonths by subactivity
11. Logistic support
12. Other support needs

Scheuber's Hypothesis: *Don't try to fix nothing that ain't broke.*

F. Planning Questions

Planning is a series of steps involving logical thinking and organization. For alternatives and constraints to be fully understood, this logic requires answers to several questions. A partial list of questions includes the following:

1. Conduct Environmental analysis. Where are we? How did we get here?
2. Set objectives. Is this where we want to be? Where would we like to be in a year or in 5 years?
3. List alternative strategies. Where will we go if we continue as before? Is that where we want to go? How could we get to where we want to go?
4. List threats and opportunities. What might prevent us from getting there? What might help us get there?
5. Prepare forecasts. Where are we capable of going? What do we need to take us where we want to go?
6. Select strategy portfolio. What is the best course for us to take? What are the potential benefits? What are the risks?
7. Prepare action programs. What do we need to do? When do we need to do it? How will we do it? Who will do it?
8. Monitor and control. Are we on course? If not, why? What do we need to do to be on course? Can we do it?

G. Planning Procedures For Projects

Most difficult in the project environment is keeping planning on target. Below are procedures that can assist project managers:

1. Let functional managers do their own planning. Too often operators are operators, planners are planners, and never the twain shall meet.
2. Establish goals before planning.

3. Set goals for planners, to guard against non-essentials, and promote effort where there is a payoff.
4. Stay flexible. Use people-to-people contact, and stress fast response.
5. Keep a balanced outlook. Don't overreact.
6. Welcome top management participation because top managers can make or break a plan and may well be the single most important variable.
7. Beware of future spending plans.
8. Test the assumptions behind forecasts. Professionals are generally too optimistic. Do not depend solely upon one set of data.
9. Don't focus on today's problems. Try to get away from crisis management and firefighting.
10. Reward all those who dispel illusions. Avoid "beheading the bearer of bad tidings."

H. Tasks and Task Outline

To keep the task outline simple, summarize the work briefly and simply, using fewest tasks and subtasks needed to describe the work. Excessively detailed task outlines invariably lead to a loss of control because project managers simply do not have the time to track minor activities and continuously update a complex task outline, schedule, and budget.

To maintain consistent task breakdowns, prepare task outlines using the same breakdown of project activities for the scope, the responsibilities, the project schedule, and the project budget. This consistency enables you to monitor progress accurately because each activity can be measured by progress made, time elapsed, and requirements for money spent. To be included in the task outline, a task or activity must contain three elements:

1. A definable piece of work.
2. A duration of at least one start date and one finish date. (Some scheduling methods call for more than one start and finish date.)
3. A level of effort needed to complete the activity.

An item not containing each of the above elements is not a defined task and does not belong in the task outline.

I. Sources of Planning Information

One of the things we seek to do with project management is to aggregate information, facts, and positions that influence a project. The following is a list of some organizational and internal sources of planning information:

1. Review current organization statements and structure.
2. Identify management goals and policies.
3. Review procedures used to communicate these goals and policies.
4. Analyze the problems.
5. Understand the operating procedures and work flow.
6. Review management information provided.
7. Secure actual and expected workload data by organizational unit.
8. Review the job sheets of key positions.
9. Check written delegations of authority, responsibility, and accountability.
10. Review regulations.
11. Note actual practices, e.g., centralization vs. decentralization and their relationship to management goals and policies.
12. Review skills, actual positions, and authorized positions by organizational elements.
13. Note current resources and the controls over them.
14. Attempt to determine informal influences.
15. Inform other staff elements of the plan, conduct, and finding of the survey.
16. Analyze the relationship of the organization structure to the workload.
17. Establish points of contact with the organization to be analyzed.

Hoar's Law of Problems: <i>Inside every large problem is a small problem struggling to get out.</i>

J. Project Plan Activities Checklist

Consolidating the planning effort, the project plan defines and assigns functions, tasks, and responsibilities throughout planning. An activities checklist may include the following items:

1. Develop a flowchart of the project management schedule.
2. Prepare a draft time line and MBO schedule.
3. Establish the objectives, issues, and purposes for the study.
4. Assign office responsibility.
5. Assign individual responsibility.
6. List products or outputs.
7. Prepare a public participation plan.
8. Establish a coordination point with key contacts and offices.
9. List data collection needs.
10. Summarize decisions proposed to be made and decisions that are not feasible.
11. Develop and use an interdisciplinary approach.
12. Develop preliminary planning criteria.
13. List expected issues.
14. List management problems and needs.

K. Decision Document Outline

Projects need a clear decision statement. The following is a format for presenting the issues and discussion for a decision-making document.

Decision Document

1. Required Decision - describes the nature of the decisions needed and the level of decisionmakers.
2. Forcing Event - states reasons for the decision (i.e., project request, legal requirement).
3. Background - briefly describes project need, scoping, alternatives, interagency coordination, or any other information needed for understanding the situation.
4. Issues and Decision Factors - covers specific issues and decision factors of significance or legal concern. This discussion should be as objective as possible and not engage in advocacy.
5. Options - Clearly set forth options for the decisionmaker. Each option should be followed by a brief listing of pros and cons.
6. Decision Sheet - A "sign off" sheet, matching the options presented in Section 5. (above), should be attached to the decision document.
7. Recommendations - Project decision documents usually do not include recommendations. Staff or field manager recommendations may be transmitted separately by memo or given orally.

L. Wrapping up the Project

One of the most difficult things project managers must do is finish the job, get it out the door, and close the project. More schedules and budgets are blown during the last 10 percent of the job than at any other time.

How can the project manager overcome this problem? First, recognize potential pitfalls:

1. A desire to continually improve the product.
2. Fear of failure, which manifests itself in a subconscious desire to avoid completing the work.
3. "Burnout" resulting from working too many hard weeks, months, or years on the same project.

Members of your project team will almost certainly suffer these maladies during the final 10 percent of the project.

To overcome these problems, view the wrap-up phase of the project as a separate miniproject with its own scope, schedule, and budget. The objective during the wrap-up is to complete the job satisfactorily, within budget, and on schedule. This objective is in concert with a primary objective during the first 90 percent of the project—to do a technically superior job. Each wrap-up miniproject should consist of the following major tasks:

1. Gather all the loose ends.
2. Evaluate all potential changes and determine which ones to adopt.
3. Make checklists of all work to be completed.
4. Implement activities to be done.
5. Back check all work done until all changes and corrections have been properly made.

M. Project Review

The following is a list of items top management or a project manager may use to determine if a project has been defined and planned and is being managed properly.

1. Project objectives and authority, and responsibility of the project manager.
 - a. Are the project objectives clear and specific enough?

- b. Is there a project charter?
 - c. Is there a clear understanding (either through custom, charter, or other policy) of the project manager's authority, or procedures that he or she should follow in these areas?
 - 1). Setting or changing priority of work in functional areas.
 - 2). Setting or changing design, performance, or operational specifications.
 - 3). Initiating overtime or hiring people.
 - 4). Approving spending beyond allocations.
 - 5). Requiring reporting procedures.
- 2. Plans.
 - a. Are the plans good?
 - b. Schedules such as Critical Path Method? Gantt? Cost-time-performance graphs?
- 3. Key participants and organization.
 - a. Have the key participants been selected?
 - b. Have the roles and responsibilities of the key participants been specified?
 - c. Is the project organization adequate?
- 4. Advisory Groups.
 - a. Are advisory groups needed?
 - b. Is the membership of the advisory groups adequate?
 - c. Is there a schedule of meetings?
 - d. Are there provisions for calling special meetings?
- 5. Correspondence.
 - a. Is the project manager adequately keeping track?
- 6. Workforce and Training.
 - a. Are the workforce, recruitment, and training plans sound?
 - b. Is the recruitment plan sound?
 - c. Is the training plan sound?
- 7. Facilities and Equipment.
 - a. Have facilities been adequately provided?
- 8. Financial Requirements.
 - a. Is the financial plan sound?
 - b. Is the project manager adequately keeping track of expenditures?
- 9. Security.
 - a. Are the clearance requirements and protection of proprietary information adequate?
- 10. Miscellaneous.
 - a. Is the present reporting system adequate?
 - b. Does the project manager require adherence to the reporting system?

- c. Are the content and frequency of the formal and informal briefings adequate?
- d. Are the assumptions for the future reasonable?
- e. Did the project manager consider all reasonable alternatives?
- f. Was the impact of the project on other projects considered?
- g. Did the project manager consider the appropriate risks and make reasonable provisions for preventive and contingency plans?
- h. Has the project been "sold" to the key participants?

N. Concluding the Project

The goal of any project is to obtain acceptance of the project results—to have quality specifications met. For these specifications to be met requires well-documented criteria for both outputs and performance, presumably clearly listed in the plan of study or other documentation.

Objective measurable criteria are always best, whereas subjective criteria are subject to interpretation. The project's intention should also be clear. For example, the following three outcomes may produce entirely different results: the project product performs the specified functions; the project product was built according to the approved design; or the project product solves the problem.

The project may or may not be complete when the product is delivered. Documentation, final reports, or final audits might be required. More training might be needed. Project team members might need to be reassigned. Or surplus materials and supplies might be disposed of and equipment released.

One thing that should be done (and rarely is) is an evaluation review—a look back to see what lessons were learned. A project completion checklist is a useful tool for such a review.

Project Completion Checklist

1. Does the project meet the specifications of the preplan?
2. Complete final report.
3. Deliver final report.
4. Reassign project people.
5. Dispose of surplus equipment, materials, and supplies.
6. Summarize major problems encountered and their solutions

7. Document advances of lessons learned.
8. Summarize recommendations for future research and development.
9. Write performance evaluations on all project staff.
10. Provide feedback on performance to all project staff.
11. Write final report.
12. Conduct project review with upper management.
13. Declare the project complete.

Contingency Principle of Management: *It all depends.*

A. Work Breakdown Structure

The successful completion of a project requires a plan that defines the effort to be expended, assigns responsibility to an individual, estimates and establishes schedules and budgets for the work. Preparing this plan is the responsibility of the project manager, assisted by the program team.

Once a well-defined project objective is developed, the project leader can produce a work breakdown structure (WBS) of the activities to be performed. The WBS is simply a process of structuring the work that must be accomplished to meet the objectives set in the project definition. The work effort is broken down to estimate the number of people needed to work on the project. The work breakdown structure is the single most important document because it provides a primary framework from which the planning can be done.

1. The total project can be described as a summation of subproject elements.
2. The project can be planned.
3. Costs and budgets can be established.
4. Time, cost, and performance can be tracked.
5. Objectives can be logically linked to resources.
6. Schedules and status reporting procedures can be established.
7. Network construction and control planning can begin.
8. The responsibility assignments for each element can be established.

The WBS breaks the work down into smaller elements, thus providing a greater probability that every activity will be accounted for. Although a variety of work breakdown structures exist, the most common is shown below.

Chapter V

Project Schedules and Budgets

The basic tool in project planning is the schedule. The schedule is a diagram representing project activities connected in a logical sequence and by logical relationships to show the workflow from the project's beginning to its end. Each activity is assigned an estimated time duration (or a range of times to reflect uncertainty) from which activity paths can be determined.

A. Work Breakdown Structure

The successful completion of a project requires a plan that defines the effort to be expended, assigns responsibility to an organizational element, and establishes schedules and budgets for the work. Preparing this plan is the responsibility of the program manager, assisted by the program team.

Once a sufficient project objective is developed, the project leader can produce a work breakdown structure (WBS) of the activities to be performed. The WBS is simply a process of structuring the work that must be accomplished to meet the objectives set in the project definition. The work effort is broken down to estimate the number of people needed to work on the project. The work breakdown structure is the single most important element because it provides a common framework from which the following can be done:

1. The total project can be described as a summation of subdivided elements.
2. The project can be planned.
3. Costs and budgets can be established.
4. Time, cost, and performance can be tracked.
5. Objectives can be logically linked to resources.
6. Schedules and status reporting procedures can be established.
7. Network construction and control planning can begin.
8. The responsibility assignments for each element can be established.

The WBS breaks the work down into smaller elements, thus providing a greater probability that every activity will be accounted for. Although a variety of work breakdown structures exist, the most common is shown below:

Level	Description of
1.	Project
2.	Task
3.	Subtask
4.	Work Package

In addition, the work breakdown structure must

1. Outline step-by-step the complete, current, approved plan (events and activities), culminating with the objectives.
2. Detail the current and projected division of labor in the organization consistent with management objectives.
3. Break the project into sequential and parallel activities and events that schedule, measure, and govern process of work by organization.
4. Show the relationship between supporting objectives and end-of-work objectives.
5. Include only activities and events that have been defined by management authority.
6. Provide structure for a meaningful reporting system for project management.
7. Be built to coordinate with projects of lateral, higher, or lower level authority.
8. Be used as a communication device to integrate objectives and activities of project managers, operating managers, and other external organizations concerned.

A good project work plan is not a report. It is a compilation of tables and figures that can be used as a reference throughout the project. The work plan should define

1. What is to be done.
2. When it is to be done.
3. How much it will cost.
4. Who will do it.

A good task outline consists of a brief summary of the scope of work. Because the task outline is the foundation of any system of project control, the project manager should devote great attention to preparing it. What constitutes a task?

1. A task must have a definable scope of work.
2. It should have a start-up date and a completion date.
3. Each task must have a required level of effort to complete the activity.

When the work break down analysis is completed, a schedule should be prepared. Certain guidelines should be followed in preparing schedules, regardless of their projected use or complexity:

1. All major events and dates must be clearly shown.
2. The exact sequence of work should be stated through a network in which interrelationships between events can be shown.
3. Schedules should directly relate to the work breakdown structure. If the WBS is prepared according to a specific sequence of work, then work sequences can be easily determined in schedules using the same numbering system as in the WBS. The least requirement should be to show where and when each task starts and finishes.
4. All schedules must show time constraints and, if possible, the resources needed for each event.

B. Milestone Charts

A project schedule must be prepared for all projects. There are several types of schedules. The milestone chart, the simplest, lists a target date for completing each activity in the task outline. The major advantage of milestone charts is ease of preparation with an emphasis on completion dates. Their best application is in simple projects with few participants and little interrelationship between activities.

Summarizing complex schedules with many tasks is a good application for milestone charts. When doing so, list only key activities to avoid excessive detail, which can defeat the purpose of the chart.

A major drawback of the milestone chart is that it shows only completion dates, which for complex projects may result in uncertainty about when each activity should begin. Although the tasks are listed in the general order in which they are to be done, completion dates greatly overlap. Furthermore, comparing completion dates with target dates shows only roughly the overall schedule status. Many projects are too complex to be controlled by a milestone chart.

Gardner's Philosophy: *Brilliant opportunities are cleverly disguised as insolvable problems.*

An example of a milestone chart is shown below in the REPORT PREPARATION SCHEDULE:

REPORT PREPARATION SCHEDULE

Report Name _____

Date _____

Project Manager _____

	Element	Date
	Approved by _____	
1.	Complete detailed work plan	
2.	Complete general outline of report	
3.	Complete detailed outline of report with lists of tables and figures	
4.	Interim submittals to _____	
5.	Complete first draft of report	
6.	Complete drafts of figures	
7.	Complete editing of report	
8.	Complete final draft of report	
9.	Submit draft to S.D.	
10.	Receive comments from S.D.	
11.	Submit final report to S.D.	
	Draft typing to be done by _____	
	Editing to be done by _____	
	Final typing to be done by _____	
	Graphics to be done by _____	

C. Bar Charts (Gantt Charts)

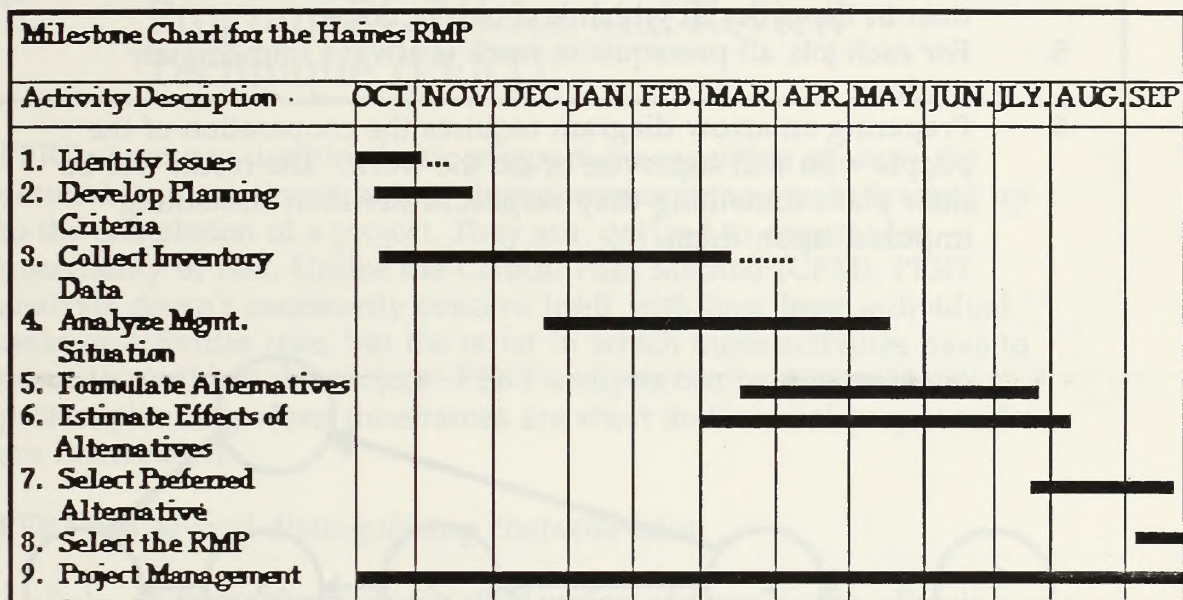
Some of the drawbacks of milestone charts can be overcome by using a slightly more complex method—the bar chart (also known as Gantt chart). Concise and easily produced and understood, bar charts are probably the most widely used planning tool.

To create a bar chart, list the steps needed to complete a project and estimate the time required for each step. Then list the steps down the left side of the chart and the time intervals along the top. Draw a line across the chart for each step, starting at the planned beginning date and ending on the completion date of that step.

Some parallel steps can be carried out at the same time with one step taking longer than the other. Parallel steps allow flexibility in starting the shorter step, as long as it is finished in time to flow into later steps. This situation can be shown with a dotted line continuing on to the time when the step must be completed.

The biggest drawbacks of bar charts are that they do not show the interrelationship among tasks or show which activities are most crucial for completing the entire project on schedule. As a result, some activities may inadvertently be omitted from the original project schedule, only to be discovered too late. Also, assigning equal importance to each activity (implicit in the bar chart method) may leave the project manager in a quandary when forced to decide which task should be delayed in the event of labor shortage. This confusion may result in assigning top priority to the wrong tasks.

The following illustration shows a simple bar chart for an RMP.



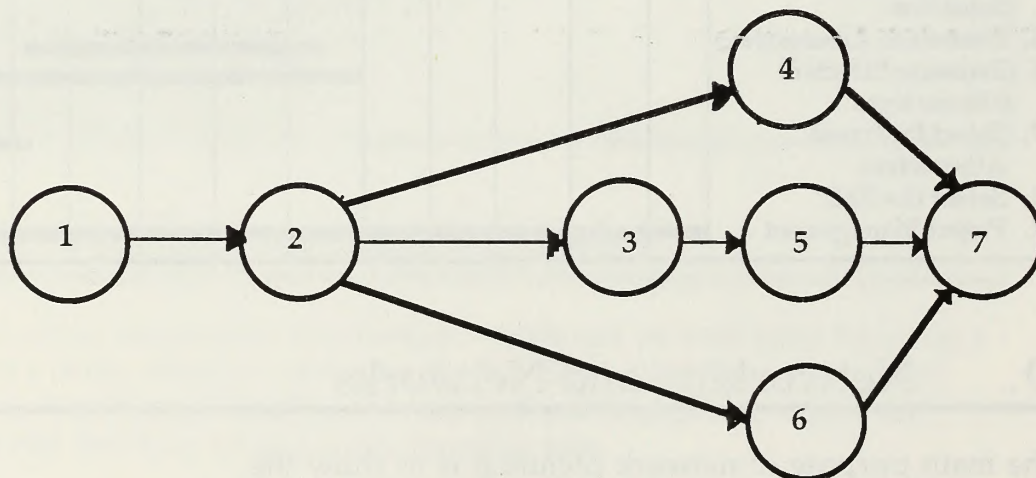
D. Networking and Networks

The main purpose of network planning is to show the interdependencies between events and activities. Networks are a manager's tool for defining and coordinating what must be done to finish the project on time. Networking is a technique that aids the decision-maker but does not make the decision. It is a method for focusing managerial attention on time, resources, and performance and adjustments concerning time. Project schedules and related techniques of budgeting, staffing, resource allocating, and interfacing all have a basis in networks. The network graph is a tool that shows interfaces and interdependencies of related activities. Simply put, a network diagram attempts to show how each activity relates to other

activities. The following illustration is a network diagram that focuses on events.

The advantages of network or arrow diagramming to create a simplified model project are as follows:

1. The diagram is a working model. It can be followed with little explanation.
2. By means of a diagram, the entire project scope can be immediately assimilated.
3. The chances of omission are greatly reduced.
4. Work is planned in the order in which it must be done rather than in the order in which it could be done.
5. For each job, all prerequisite work is always immediately evident.
6. Preparing an arrow diagram requires the cooperation of the people who will supervise or do the work. The result will be their plan, something they respect, rather than something imposed upon them.



Network Construction Focusing on Events

In this case the bubble or node represents an event or a point in time. The first node is the starting point. Each succeeding node assumes that a task or event has been completed. The arrows show activities that must be done to reach the events they connect to. Once gross activities and the later network diagram are shown, then work elements can be broken down in greater detail. Network diagrams represent the following:

1. Impacts of late starts.
2. Impact of early starts.
3. Cost of a crash program.
4. Slippage in planning.

The major disadvantages of milestone and bar charts are that they don't show interdependencies between events and activities. But by using bar, milestone, and network charts, one can construct PERT charts, a method that shows task interrelationships and analyzes task schedules.

E. Program Evaluation and Review Technique (PERT)

PERT charts are used in classic program management to show the network and relationships and dependencies among tasks leading up to the completion of a project. They are devised to account for uncertainty or risk. Unlike the Critical Path Method (CPM), PERT analysis doesn't necessarily concern itself with how long individual tasks or activities take, but the order in which those activities have to occur to complete the project. PERT analysis can be invaluable in project planning when timeframes are short and several project tasks are interrelated.

PERT has several distinguishing characteristics:

1. It forms the basis for all planning and predicting, allowing management to plan for the best use of resources.
2. It helps answer questions of uncertainty.
3. It uses a time network to best determine labor, material, and capital requirements.

The PERT approach makes three time estimates for the duration of each activity and uses these in the basic network. These three time estimates are as follows: 1. OT-Optimistic Time (if everything goes perfectly) 2. MLT-Most Likely Time (probably the one developed for the basic network) 3. PT-Pessimistic Time (if everything that could go wrong does go wrong)

Then, the Expected Time (ET) is calculated as follows:

$$\frac{OT + 4MLT + PT}{6} = ET$$

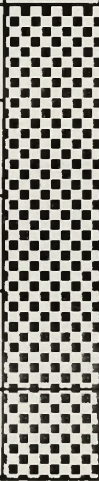
Finally, estimates of durations for the project are calculated. The result of these calculations combine to determine the probability of successfully meeting the schedule. Once constructed, PERT charts provide a framework from which detailed planning can begin. Another use of the PERT diagram is to allow for calculating the critical path. This path is the longest path through the network and as such shows essential steps that must be completed on time to avoid delay in completing the project.

Adopting PERT, however, involves some problems. Many managers feel that this technique removes a good portion of their power and decision making ability. Furthermore, organizational tension between individuals may result from the fact that planners generally produce PERT planning but functional management carries it out.

F. Full Wall Scheduling

The technique of full wall scheduling uses a full wall on which vertical lines spaced 5 inches apart are drawn and spaces between each pair of lines represents one workweek. Horizontal lines spaced 3 inches apart are used to separate key project team members. An illustration of a full wall schedule is described below:

LAYOUT FOR WALL SCHEDULING

TEAM PARTICIPANTS	WEEK #1	WEEK #2	WEEK #3	WEEK #4	AND SO ON ...	
AA	TASK 1	TASK 3			TASK 7	
BB		TASK 5		TASK 6		
CC		TASK 2	TASK 5			
DD		TASK 4		TASK 6		
EE	TASK 2		TASK 5		TASK 7	

To assemble the full wall chart, the project manager must compile a list of project tasks, decide who is mainly responsible for each task, and

prepare a preliminary milestone chart. The project manager then writes each task on two 3- by 5-inch index cards, labeling one card "start" and the other "finish." After preparing all cards, the project manager writes the name of the key team member on an a 3- x 5-inch card and pins the cards along the left column of the divided wall. Team members are then handed their cards and asked to tack each one onto the vertical division on the wall during the workweek in which each task will be started and finished. More cards or changes can be made for unexpected tasks.

In wall scheduling, specific tasks can be assigned at specific times. The key feature of the wall scheduling procedure is the high degree of interaction during the scheduling meeting. Conflicts are recognized early, discussed, and resolved. The process enables the key project team members to make firm commitments to the project manager on their assigned activities.

Successfully applying the wall system relies on the project manager's skills in planning the project, establishing the team's preliminary schedule, and directing the scheduling meeting. The main disadvantage of wall scheduling is that it requires all parties to come together for a scheduling meeting. In addition, wall scheduling does not clearly show interrelationships of tasks on a critical path as well as the critical path method.

G. Project Scheduling Using Computer Software

Dozens of good project management software packages exist for personal computers. Many would apply to project planning and management within BLM and would be useful to anyone planning a project involving several tasks and deadlines. But computer software will only assist; it will not design/develop or otherwise tell how to prepare the work. The program is only as good as the data, and if it's garbage in, then it's garbage out.

Several software packages help schedule projects, for example, dynamically considering how the completion of one task depends on the completion of another. These programs typically use bar charts, CPM, or PERT analysis to allow the manager to better understand the relationships among tasks, schedules, people, and other related resources. Using a computer and existing software allows managers to analyze project schedules quicker than otherwise and to make better

decisions about schedule changes. Another benefit is the graphics capability of most personal computers.

Bar charts, PERT charts, and other portions of project plans can be generated quickly and attractively for use in presentations, staff meetings, and other situations where project details need to be communicated clearly and accurately.

While project management software has improved greatly, it still cannot do some critical tasks. The manager and team still need to produce the work breakdown structure, the resource assignments, and people and calendar estimates.

H. Comparing Scheduling Techniques

No single scheduling method is right for all projects. The table below summarizes some of the most important criteria for selecting the best scheduling method. Review these criteria for each project, and select the method best suited to the criteria with highest priorities.

<u>Criteria for Selecting the Proper Scheduling Method</u>				
<u>Evaluation Criteria</u>	<u>Types of Scheduling</u>			
	Milestone	Bar Chart	CPM Diagram	Full Wall Schedule
1. Ease of Communication	Good	Good	Poor	Excellent
2. Cost to prepare	Minimal	Minimal	Extensive	Moderate
3. Cost to update	Minimal	Minimal	Extensive	Moderate
4. Degree of control	Fair	Good	Excellent	Moderate
5. Applicability to large projects	Poor	Fair	Excellent	Good
6. Applicability to small projects	Excellent	Good	Poor	Good
7. Commitment from project team	Fair	Fair	Fair	Excellent
8. Client appeal	Fair	Good	Excellent	Excellent

I. Avoiding Common Pitfalls

Establishing a realistic project schedule is difficult. The following pitfalls have been commonly observed as a job progresses:

1. Scheduling time for final reviews without scheduling time to make the changes that always result.
2. Failure to anticipate the nontechnical activities that must be performed after all the requirements have been met, such as phone calls and meetings with review agencies to obtain necessary permits.
3. Scheduling a project without properly considering the impact of other projects on the workload of the project team.
4. Failure to obtain firm commitments from key project team members, including outside consultants.
5. Failure to provide time in the schedule for the inevitable slippage. Slippage time is a needed ingredient of good scheduling, to allow for reviews and changes that will occur in every project.

All of the above problems can be remedied more readily if they are anticipated when the project schedule is prepared. If ignored, they will almost always cause difficulties later in the project. Early identification of a problem is 80 percent of its solution. But even if this statement is true, the other 20 percent remains for you to worry about. Following are a few successful ways to overcome schedule problems on a project:

1. Stop evaluating alternative solutions. When you reach a choice among several options, pick one that you know will work and go with it.
2. Get the less experienced people off the project. Senior people can get much more done if they don't have to spend time supervising trainees. You can also do more technical work yourself if you save supervisory time.
3. Get permission to postpone noncritical administrative duties until you have survived the crunch. Then spend extra time on the most critical aspects of the projects.
4. Recognize the critical activities and concentrate your efforts on them. Also, see if anything can be allowed to slip without harming the schedule.
5. Work overtime. Everyone works overtime; it is usually the first technique used to get back on schedule. But be careful not to consider overtime a cure-all. If you work overtime, keep working only until midnight.

6. Shun excessive effort toward perfection. Most decisions are 90 percent perfect the first time; we spend whatever time is left making them 5 percent better.

J. Budgets

Budgets can be compiled in four ways for any project.

1. In zero-based budgeting, you start with a list of tasks and estimate the workmonths, hours, and corresponding costs to perform the work.
2. Downward budgeting involves starting with the amount of money available and breaking out the components to establish the number of workmonths.
3. In historical budgeting, cost data are estimated from similar projects.
4. Staffing budgeting considers the number of people assigned to a job for a certain period.

The following are ways to overcome budget problems and get back on track.

1. Examine the figures, and make sure you are over budget.
2. Check to make sure that everything is required in the plan of study.
3. Shorten the schedule and work overtime.
4. Stop evaluating alternative solutions.
5. Use temporary help.
6. Be a squeaky wheel; don't hide it.
7. If all else fails, ask for more money.

The project manager's creed:

*We the unwilling, led by the unknowing,
are doing the impossible,
for the ungrateful.*

*We have done so much, for so long,
for so little, we are now
qualified to do anything with nothing, forever.*

Chapter VI

Team Management

Regardless of the organizational structure, successful project management is only as good as the individuals and leaders who manage the key functions. Project management is not a one-person operation; it requires a team dedicated to achieving a specific goal.

Project personnel include

1. A project manager.
2. An assistant project manager (if needed).
3. A project team.

A. Selection of Project Staff

The first step in organizing the project team is to determine what kind of expertise is needed for each activity on the task outline. On study projects, the breakdown is usually more subtle, considering such factors as educational background and experience on similar projects.

The next step is to group all activities to be done by each type of person and prepare an organizational chart. Now you have something to discuss with individuals to be assigned to the project. Because the best people are always in demand, the trick is to assemble a team that not only can do a good job, but also can devote the required time to the project. The following are a few tips:

1. Make people want to work on the project. Even busy people always seem to make time for what they want to do.
2. Obtain tentative commitments from key people during the proposal stage and involve them in preparing the proposal.
3. Remind key people of commitments.
4. Don't demand that certain key people work on the project; rather, try to convince your principal of the overall benefits to the office.
5. Keep personnel forecasts current and apprise your managers of the results.
6. Understand that managers must make work assignments that are best for the entire office, not just your project.

Since many BLM special projects are of high visibility and controversial, we should select the best possible staff to serve on project teams. Many of the traits one looks for in a project manager are also desirable for team members. Desirable traits are as follows:

1. Technical competence in one's field.
2. Oral and written communication skills.
3. Ability to work as part of a team.
4. Ability to work under pressure with short deadlines.
5. Ability to accept criticism and compromise.
6. Versatility.
7. Organization and discipline.
8. Willingness to accept the job.

Ideally, the project manager should help select the project team. The project manager should also have the responsibility of providing feedback on the performance of team members. This feedback should go to team members and to their normal supervisors.

1. Resolving Short-Term Problems

If the workload temporarily increases, rather than hiring people who would have to be laid off when the workload returns to normal, the project manager can do the following:

1. Authorize overtime.
2. Use temporary employees.
3. Try joint venturing with other organizations.
4. Use individuals normally assigned to overhead functions.

2. Resolving Long-Term Problems

If the long-term workload justifies hiring more full-time people, realize that it takes an average of 3 months from the time a hiring decision is made until a person is working productively. For disciplines that are in demand, hiring can take much longer. What is needed is a long-range recruiting and training program. Such a program should answer the following questions:

1. What kinds of people will we probably need over the next few years?
2. What mix of experience levels do we want?

3. Which individuals on our present staff should be groomed for positions of greater responsibility?
4. Where should we recruit more staff?
5. What criteria should be used to judge potential employees?
6. How can we minimize turnover in our existing staff?

Of the above questions, probably the most important is number 6.

3. Staff Implications of Project Team Assignments

Before staffing begins, there must be an understanding of employee performance concerns.

Employee performance poses difficulties for many because the project environment is a change in the way of doing business. Most people prefer stability, regardless of how competent they are, and find it difficult to continually adapt to changing situations. As a result, some people have come to resent change. By definition, projects are temporary assignments. But many people thrive on temporary assignments because of the "chance for glory." These usually creative people enjoy challenging work more than they fear the cost of failure.

Another performance problem results from someone having to report to two bosses—the functional manager and the project manager. If these two bosses agree about the work to be done, then performance will not suffer. But conflicting directives can result in a lower performance due to a compromised position, regardless of someone's capabilities and experience.

Those likely to be assigned project duties should have the assignment in their position descriptions, and team member grade levels on the project should be the same as the grade levels of their other duties. Both the supervisor and the project manager should assure themselves that this is the case so that formal details and official personnel actions are not needed for someone to work on a project. Personnel actions would be required only when say, GS-11 writer-editor duties were required, and the state organization had no writer-editor at that level to assign to the project. In this case, a temporary promotion or detail might be in order. But, if the organization is set up to do project work on a normal basis, details and temporary promotions should be rare.

B. Employee Accountability

The Performance Improvement and Position Review (PIPR) is a useful tool in project management. For example, where an employee is accountable to three different officials while performing different roles, the PIPR can be used to establish the job element and the standards. If more than one supervisor is responsible during the rating period, then the immediate supervisor can be referenced and consultation responsibilities defined. In the long run, however, projects and project management do not solve all personnel problems, nor do they make problems more complicated, if properly handled. The following table shows how a PIPR might be prepared using different managers for performance ratings.

<u>PIPR for JohnDoe</u>		
ELEMENTS	STANDARDS	PERFORMANCE
1. Recreation Plan team leader	xxxxxxxxxxxxxxxxxx xxxxxx	Prepared in consultation with District Manager
2. VRM Training	xxxxxxxxxxxxxxxxxx xxxxxx	Prepared in consultation with Biological Resources Branch Chief
3. Teshepuk Lake recreation element	xxxxxxxxxxxxxxxxxx xxxxxx	Prepared by Planning and Environmental Coordination Branch Chief
4. Environmental Coordination	xxxxxxxxxxxxxxxxxx xxxxxx	Prepared by Planning and Environmental Coordination Branch Chief

On commitment and involvement: the next time you have ham and eggs for breakfast, consider the fact that the chicken was involved but the pig was committed.

C. Directing

Directing projects involves the following:

1. Staffing. Seeing that a qualified person is selected for each position.
2. Training. Teaching individuals and groups how to fulfill their duties and responsibilities.
3. Supervising. Giving others daily instruction, guidance and discipline so that they can fulfill their responsibilities.
4. Delegating. Assigning work, responsibility, and authority so others can make the most use of their abilities.
5. Motivating. Encouraging others to perform by fulfilling or appealing to their needs.
6. Counseling. Holding private discussions with someone on how to work better, solve a personal problem, or realize ambitions.
7. Coordination. Seeing that activities are conducted according to their importance and with the least conflict.

Directing subordinates is not easy because of the short duration of the project and because employees might still be assigned to a functional manager while temporarily assigned to you. You may not have the luxury of getting to know your subordinates.

Project managers must be decisive and move forward rapidly whenever directives are needed. It is better to decide an issue and be 10 percent wrong than to wait for the last 10 percent of input and cause a schedule delay and improper use of resources. Directives are most effective when the KISS (keep it simple, stupid) rule is applied. Directives should be written with one simple and clear objective so that subordinates can work more effectively and get a job done right the first time. Orders can be issued in a way that expects and gets immediate compliance. The biggest reason staff will obey an order is because they respect their superior. Orders should be disguised as suggestions or requests. The requestor should ask the receiver to repeat oral orders to avoid misunderstanding.

D. Controlling

Because the planning phase provides the fundamental guidelines for the rest of the project, careful management control must be established. In addition, since planning is an ongoing activity for many different

programs, management guidelines must be established statewide to achieve unity and coherence.

All functional organizations and individuals working directly or indirectly on a program are responsible for notifying the program manager of scheduling and planning problems that require corrective action during both the planning and operating cycle. The program manager has final responsibility for establishing requirements for corrective actions. Management policies and directives are written to assist the program manager in defining requirements. Without clear definitions during the planning phase, many projects go in many directions.

Controlling is a three-step process:

1. Measuring. Determining through formal and informal reports how much progress is being made.
2. Evaluating. Determining the cause of and solutions to significant deviations from planned performance.
3. Correcting. Correcting an unfavorable trend or taking advantage of a favorable trend.

Responsible for meeting group and organizational goals and objectives, the project manager must have a thorough knowledge of standards, cost-control policies, and procedures so that operation results can be compared to standards. The project manager must then take corrective actions. Further elements of a project control system are as follows:

1. The work environment and top management's role.
2. The vertical flow of information.
3. Delegation of authority-information reporting thresholds.
4. Important policies.
 - a. Approving projects and setting objectives.
 - b. Preparing and managing baseline plans.
(schedule, cost, earned value, specifications)
5. What does top management really need?

E. Documentation

Of all considerations and activities of project managers and their staffs, documentation is most imperative to the project management process for several reasons:

1. Documentation is a major way to help organize the progress of the project manager. Writing documentation in a legible, organized manner will help organize the process.
2. Recording activities is vital for staff functioning under the project manager. Such documentation serves as a track of progress for a managerial review, which is sometimes unexpected.
3. Should the project manager leave for any reason this documentation will be vital to his successor.

All documentation of the project management process regarding analysis of a particular system should be kept in a looseleaf notebook titled "project notebook." The documentation for each step of the process should be checked in sequence in this workbook. The project notebook differs from the project management plan by representing a uniform systematic technique for aiding in the performance of all steps of the project management process. The workbook should contain all vital or otherwise written communication and worksheets. It should be flexible enough in design and selection that material can be added, deleted, or modified to meet project requirements. The notebook should contain these sections:

1. Project and Team Identification
2. Specific Project Activities
3. Sequencing the Activities
4. Initial Network Diagram
5. Time Estimates
6. Network Diagram Calculations
7. Preliminary Gantt Chart
8. Final Plan and Schedule
9. Implementation

F. Keeping a Things-To-Do List

Most project managers have learned by experience that "if it isn't written down, it won't get done." The importance of keeping a to-do list cannot be overemphasized. The following tips can make your lists more effective:

1. Keep your lists on the same size paper to avoid having all kinds of notes and lists posted all over your office, obscuring important tasks.

2. Keep old lists that have been crossed out as a record of what you have done. To find old records, write the date that each page was begun or completed.
3. Highlight urgent tasks so they are not overlooked.

One of the best ways to keep a to-do list is to use a 3- by 5-inch spiral notebook. The upper right side of a page should show the date the page was begun. The left side should show telephone numbers, addresses, directions, and miscellaneous information needed to accomplish the tasks listed on the right side. Because it is small, you can keep the notebook with you at all times, and write things down as you think of them. Old notebooks can be kept chronologically for reference to past activities, important phone numbers, and addresses. And, you can review and update the notebook during "deadtime."

G. Delegating

One of the most difficult tasks for project managers is to properly delegate responsibility. The most common problems are the reluctance to delegate work and the loss of control once work has been delegated.

Many project managers begin their careers doing technical work on projects. After several years, the best are often promoted to project manager and given overall project responsibility. Project managers thus tend to resist assigning work to anyone else for fear it wouldn't be performed as well as they themselves would do it. The key to overcoming this reluctance is to establish minimum acceptable levels of performance and be firm in insisting that these standards for technical quality, budgets, and schedules be met.

The following kinds of tasks can be delegated:

1. Something you don't have the expertise to do yourself.
2. Technical tasks that someone else can do sufficiently or as well as you.
3. Project management tasks.

Once you decide to delegate a task, the first step is to define the work clearly. On every task, you should

1. List all existing information.
2. Define what needs to be completed.

3. Agree on the level of effort required.
4. Establish a suitable completion date.

Especially important is item 2—defining in detail the completed task. For example, you may define completion of a study project as a detailed outline of the final report, possibly including lists of figures and tables. Such tools are invaluable for assuring good communication. They also help in monitoring progress on the project. The best way to define work is to use a project management "preplan" or plan of study for the overall direction and an individual PIPR for specific actions.

Probably your greatest challenge is establishing and using control. You should permit your team to operate with a high degree of freedom while you maintain effective control. The most successful project managers spend most of their time controlling delegated work.

The delegation process is also an opportunity to promote the growth of subordinates by engaging them in the project to the extent that they realize their potential. You need to make them feel responsible for the entire project, not just their areas. Excellence is more likely when members seize new opportunities as they develop, uncover problems and difficulties early before they become major crises, share their knowledge and expertise, and feel committed to carrying out decisions. When members feel responsible for the project, their responses to new conditions are quicker and more appropriate.

Rapid change also brings with it greater likelihood that familiar solutions, practices, and procedures will soon become outdated. When tasks are complex, different people are likely to know different parts of the problem. The team brings diverse knowledge and expertise. If the problem is multifaceted, the group can make better decisions.

Finally, high member commitment increases the likelihood that solutions will be fully implemented. Part of the quality of a solution rests with how well it is carried out. Workable solutions consider political factors in the organization, the skills and styles of those having to implement the decision, and the unique aspects of each situation. Thus, even a leader's technically correct answer may not be as good in practice as collaborative solutions of members who know the conditions that must be met to put the solution into practice.

This approach has the added benefit of extending the increased feelings of responsibility of subordinates beyond task issues to managerial ones. If subordinates want to advance into managerial positions, they will be attracted to a job that involves learning how to work with others and sharing in the unit's management.

There are more points of contact. All-controlling-all allows more influence than one-controlling-all. Team members must function not only as heads of their own specialized areas but as part of the overall management function for the department.

Having to deal with the dual loyalties of the members teaches important managerial skills: balancing competing interests, seeing issues in a wider context, working collaboratively, sustaining good working relationships with those who are prepared to fight for their views, and making sacrifices for the greater good without being a pushover. These skills are useful even for subordinates who do not directly supervise anyone.

A cohesive, mature team increases the department's range of skills and knowledge. Drawing upon members' skills can supplement the leader's capabilities.

Members who feel ownership of a solution also feel that it is their right and responsibility to influence others who are implementing the solution. Member adoption of the managerial perspective serves as an excellent control mechanism to see that tasks are completed well and on time. Groups can exert greater pressure than can an individual, even when that person is the boss. Most people are even less willing to face their peers with an unfinished or inadequate performance than they are their boss.

Expanded technical knowledge can be gained through work assignments and discussions in team meetings, where members can learn from each other, particularly when everybody feels free to share the problems and issues of subareas.

Another benefit of a continual developmental orientation is its extremely motivating and energizing effect on the subordinate. Not all subordinates can be developed; some lack the interest, motivation, or ability. But before subordinates are written off or relegated to dead-end jobs, the manager should strive to know their potential.

Finally, all of us must know that we are doing something of value. If the project manager can impress this upon the group, the motivational factors of developing them will be that much easier to use. The following are other suggestions for effective delegation:

1. The supervisor who understands and practices the art of delegation ensures prompt and effective work performance and creates the conditions needed for cooperation and teamwork.

2. The supervisor should establish a classification of tasks according to importance. Tasks may be divided as follows:
 - Group 1: Senior Tasks that must be handled personally.
 - Group 2: Intermediate tasks that could probably be handled by a competent senior assistant.
 - Group 3: Routine tasks that could easily be delegated.
3. The supervisor may wish to apply the rule of errors, which states that employees will not be held accountable for small errors in any of the minor decisions they have to make, but they will be held accountable for the major decisions and particularly for the overall results expected of them.
4. Supervisors should make sure that they know their authority levels.
5. Supervisors must force themselves to "give away" the work they particularly like to do. They must give up their "vocational hobbies."
6. Supervisors must help employees define the levels of authority they need for making decisions in each job function. Levels of authority might be established as follows:
 - Level A: Complete authority.
 - Level B: Act and report.
 - Level C: Act after approval.
7. Supervisors must define the kinds of decisions they make by their objectives and possible future decisions.
8. In practice, delegation is a personal thing involving interpersonal relationships rather than company policy or philosophy. These relationships are the largest determinants of the success.
9. Employees should not be encouraged to think it is easier to ask the supervisor than to make the decision themselves.
10. An employee should not be made to lack self-confidence or fear criticism for mistakes.
11. Employees should have the needed resources and information for the job.
12. The employee must have adequate incentive.
13. The delegation must be effectively communicated so employees know that they have been given the authority.

H. Managing Crises Effectively

No matter how well you do in planning, organizing, directing, and controlling, crises will arise. Crises are resolved not only by conflict resolution techniques but by other measures:

1. Waiting a few minutes—the crisis may disappear.
2. Not assessing blame—it wastes energy and impairs the working relationships needed to solve the problem.
3. Separating the people from the problem.
4. Carefully defining the problem—not just the symptoms, but the causes.
5. Focusing on organizational interests, not one's position.
6. Taking positive, authoritative action. A crisis demands that one leader take charge.
7. Working together to create options that will satisfy both parties.

I. Conflict Resolution

There are essentially seven ways to deal with conflict:

1. Avoidance is useful when a postponement may provide time for more information to be gathered or others with more expertise to step in. Avoidance is also used when the risk of making a decision outweighs the gains. However, avoidance restricts work output and is usually only a temporary solution.
2. Accommodation preserves harmony, avoids disruption, prevents competition, and is useful when the issues are not important. But accommodation does sacrifice your viewpoint and limits the creative resolution of a problem.
3. Competition protects against those who take advantage of non-competitive behavior and usually results in a quick solution. But there is little commitment to this temporary solution. Competition halts exploration of new approaches and is often achieved at the expense of others.
4. Collaboration offers a mutual exploration of new approaches. The mutual solution is usually permanent and gains commitment from all. Collaboration's drawbacks are that it is time consuming and requires participation from others.
5. Compromise allows a manager to bargain with individuals or groups to influence them to exchange things of value on mutually acceptable terms. Sometimes both sides give up

something of value. Although compromise is probably the most common method of managing conflict, only partial satisfaction is achieved.

6. Adjudication occurs when a manager sets up some organizational mechanism to determine who will win or lose in conflict situations. The mechanism may be a person, committee, policy statement, or procedural manual. Adjudication clearly involves a win-lose competition. It often leaves one party ungrateful (they deserved to win) and the other bitter (they also deserved to win but did not).
7. Reorganization is the adjusting of organization structure, pattern of authorities, work assignments, or procedures to minimize conflict. Those involved often evaluate these changes from a win-lose viewpoint. Losers may be resentful and winners jubilant. These attitudes may block future cooperation.

The following things should be remembered in resolving conflicts:

1. First, define the problem. How do unpleasant facts contrast with a preferred alternative? Then analyze the problem by breaking it down, suggesting causes, and noting barriers to resolution. Discuss approaches by brainstorming strategies, theoretical cures, or broad ideas. Finally, for resolution, come up with specific steps to solve the problem.
2. Don't worry about being seen as a winner or not being seen as a loser.
3. Participants are problem solvers, not adversaries or friends.
4. The goal is a wise decision, reached efficiently and amicably. The goal is not agreement or victory.
5. Be soft on people, hard on the problem.
6. Do not rely on trust or lack of trust in solving a problem.
7. Don't make offers or threats, but explore interests.
8. Avoid having a bottom line.
9. Invent solutions that provide mutual gain.
10. Develop multiple options and choose later.
11. Insist that input be objective.
12. Don't make problem solving a contest of will.
13. Reason and yield to principle, not pressure.
14. A problem is solved when the situation becomes acceptable.
15. Problem solving is a never ending process.
16. Don't spend time solving the wrong problem,

stating the problem too generally or so it can't be solved, or trying to get agreement on the solution before there is agreement on the problem.

J. Encouraging Feedback

Feedback is a necessary part of the communication process directly related to team building and team management. To get this feedback, rapport must be built between managers who are ready, willing, and able to listen to subordinates, whether the reaction is negative or positive. Feedback is important for several reasons. First, it may provide some good ideas for making decisions and implementation. Another reason is that if employees feel their reactions and suggestions are being listened to and considered, they will be more apt to accept and even welcome change. Some ways to encourage feedback include the following:

1. Tell people you want feedback. Encourage people to speak up, raise questions, and disagree. Taking a moment to comment on the usefulness of a question or the need for disagreement will start feedback.
2. State the areas in which you want feedback. Indiscriminate feedback, consisting of idle talk, grievances, and ax-grinding, is wasteful. If all members of the organization know the topics on which feedback is encouraged, they will more easily speak up at the right time.
3. Set aside a time for regularly scheduled feedback sessions. Remedial effort to deal with a major organizational crisis is more time-consuming and emotionally punishing than steps taken to prevent the crisis. Feedback sessions should be regularly scheduled.
4. Use silence to encourage feedback. If you want others to speak up, remain silent and wait. If you wait long enough, the other person will begin to communicate.
5. Ask questions. Questions are useful in all interpersonal communication. But the speaker must be certain that the question is fully understood before responding to the answer.
6. Use statements that encourage feedback. To encourage feedback, one can say "I see" or "that's interesting," or "tell me more about it."
7. Reward feedback. We should reward those who give us feedback. Unfortunately, what is often rewarded in

- organizations is behavior of those who do not give direct, honest feedback.
8. Focus feedback on observations rather than on inferences. Observations refer to what you can see or hear in the behavior of another, whereas inferences refer to your interpretations and conclusions from what you see or hear.
 9. Focus feedback on description rather than judgment. The effort to describe presents a process for reporting what occurred, whereas judgment refers to an evaluation.
 10. Focus feedback on descriptions of behavior that are "more or less" rather than "either-or." When you use "more or less" terminology, you stress quantity, which is objective and measurable, rather than quality, which is subjective and judgmental.
 11. Focus feedback on behavior related to a specific situation, rather than on an abstraction.
 12. Focus feedback on the sharing of ideas and information rather than on giving advice. When you advise, you are cutting off someone's feedback.
 13. Focus feedback on exploration of alternatives rather than on answers or solutions. The more we can focus on a variety of procedures and means for accomplishing particular goals, the less likely we are to accept premature answers or solutions.
 14. Focus feedback on the value it may have for the receiver, not on the value of "release" for the person giving the feedback. The feedback given should serve the needs of the person receiving the feedback.
 15. Focus feedback on the amount of information that the person receiving it can use, rather than on the amount that you might like to give. Overloading someone with feedback reduces the possibility that the feedback will be used effectively.
 16. Feedback, especially personal data, should be shared at suitable times. Because receiving and using personal feedback involves many possible emotional reactions, be sensitive to the appropriate time to give feedback.
 17. Focus feedback on what is said rather than why it is said.

K. Organizational Structure

The normal BLM organizational structure works well when there are properly designed guidelines for carrying out work, and one organizational level has most of the people, money, and authority to

do the work. But the formal organization becomes cumbersome in at least four instances:

1. When the job is so large that communication and coordination become exceedingly complex.
2. When people from several different units and levels in the organization, normally working for different people, are directly involved in completing the work.
3. When the work is experimental and lacks clear direction and guidelines for its accomplishment.
4. When a short timeframe exists.

A tremendous amount of conflict exists in organizations because employees do not know their roles. The structure of BLM depicts the flow of authority, responsibility, accountability, and information. As a result, the structure partially clarifies roles. Since the management of projects crosses functional areas, project managers, functional managers, and project team members must have a good understanding of organizational structure concepts.

Most modern organizations are so complex as to preclude effective management using traditional organizational structures and relationships. How, then, does one determine which organizational form is best if projects can last from a few months to a few years. A project management approach can generally be effective if it is:

1. Definable in specific goals.
2. Infrequent, unique, or unfamiliar to the present organization.
3. Complex in its interdependence of detailed tasks.
4. Critical to the organization.

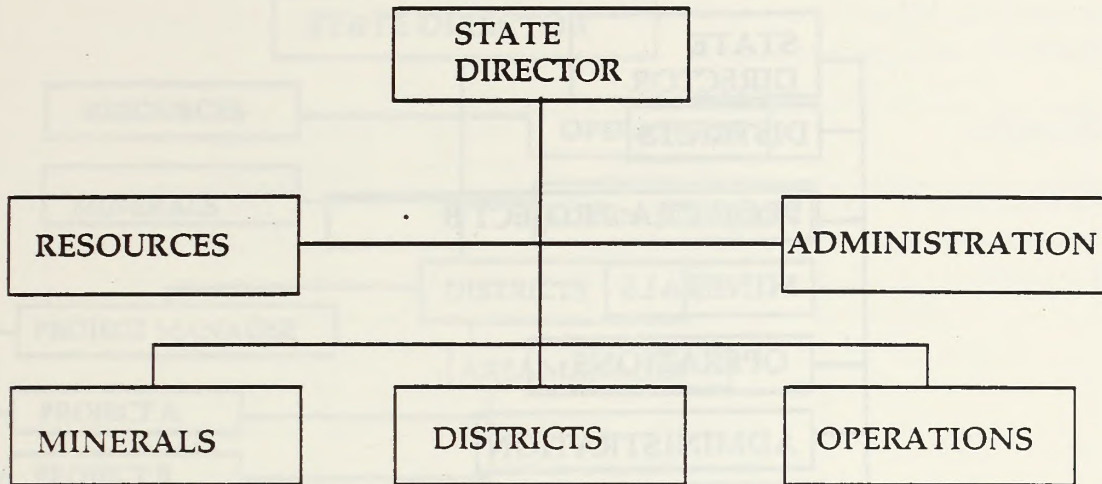
and includes:

5. Diversity of products.
6. Interdependencies among subunits.
7. Level of technology.
8. Organizational size.
9. Rate of change affecting the organization.

For example, the following three tables of organization show possible project management organizations within BLM. All of these organization structures are hybrids and could be rearranged further.

1. A Functional Organization Structure

A functional organization in which people remain strictly in their existing organizational positions.



Advantages:

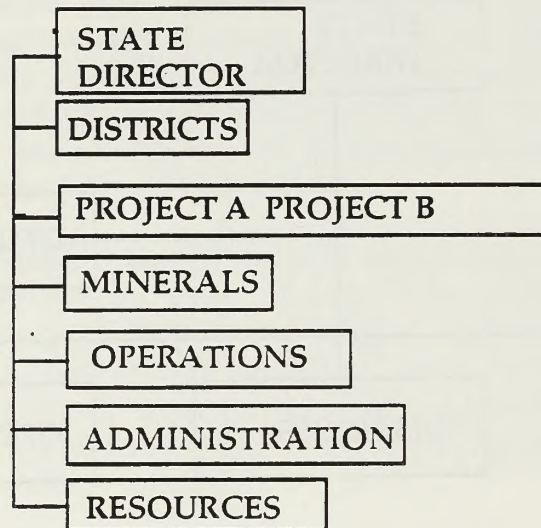
1. People can be easily moved from project to project.
2. A large concentration of specialists is involved.
3. Policies and procedures are uniform.

Disadvantages:

1. No individual is responsible for the project.
2. This organization is slow in responding to time pressures . . . different priorities, tasks, and goals.
3. Determining responsibility is difficult.
4. Coordinating activities between functional areas is difficult.

2. Pure Project Organization Structure

In a Pure Project orientation all people on the project are in one organizational unit.



Advantages:

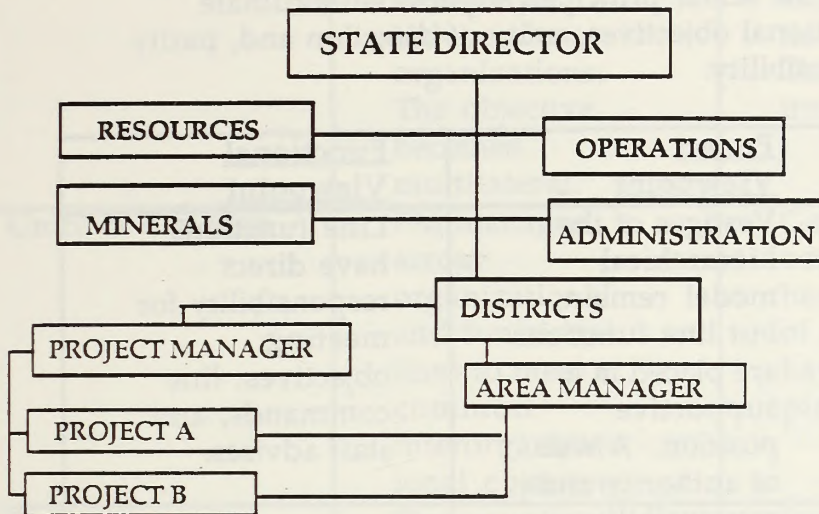
1. One individual is responsible for each project.
2. The project coordinator has authority over resources.
3. Good communication is maintained.
4. Changes can be easily made.

Disadvantages:

1. Duplication of effort may result.
2. This orientation may result in problems with empire building and the tendency to keep people longer than they're needed, especially "good" people.
3. It is difficult to keep people when the project ends.
4. Learned knowledge and experiences are not transmitted.
5. A project must pay more for good people because of limited length of employment.

3. A Matrix Organization Structure

In a Matrix Organization people report to both a project manager and a functional manager.



Advantages:

1. One person is responsible for each project.
2. Specialists are used from functional areas.
3. The project manager spends the least amount of time dealing with employee problems.
4. Project problems are quickly handled only if everyone likes the project manager.
5. Project people have a place to go when a project is over.

Disadvantages:

1. The potential exists for conflict between project and functional managers.
2. The project manager has only project authority over the team members.

A means of gaining insight into project management is to contrast it with the more traditional functional management.

If you think you can—or think you can't—you're absolutely right.

There are several ways to view the differences between a project and a functional viewpoint. These two points of view need to be clear to all

parties involved on organization design because they will need to be discussed and placed in a mission orientated framework of the agency, The following table illustrates some of the differences when arrayed against some of our more well known management principals such as line-staff organization, the scalar principal, superior-subordinate relationships, organizational objectives, unity of direction and, parity of authority and responsibility.

<u>Phenomena</u>	<u>Project Viewpoint</u>	<u>Functional Viewpoint</u>
Lines-staff organization dichotomy	Vestiges of the hierarchical model remain, but line functions are placed in a supportive position. A web of authority and responsibility exists.	Line functions have direct responsibility for meeting objectives, line commands, and staff advises.
Scalar principle	Elements of the vertical chain exist, but prime emphasis is placed on horizontal and diagonal work flow. Central business is conducted as the legitimacy of the task requires.	The chain of authority relationships are from superior to subordinate throughout the organization. Central business is conducted up and down the vertical hierarchy.
Superior-subordinate relationships	Peer-to-peer, manager-to-technical-expert, associate-to-associate relationships are used to conduct much of the salient business.	Most important relationship; if kept healthy, success will follow. All important business is conducted through the pyramiding structure of superiors and sub-ordinates.

Organizational objectives	Project management becomes a joint venture of many relatively independent organizations. The objective becomes multilateral.	Organizational objectives are sought by the parent unit working within its environment. The objective is unilateral.
Unity of direction	PM manages across organizational and functional lines to meet a common interorganizational objective.	General manager acts as the one head for a group of activities having the same plan.
Parity of authority and responsibility	Opportunity exists for the PM's responsibility to exceed authority. Support people are often responsible to other managers	Integrity of the superior subordinate relationship is maintained through functional authority and advisory staff services

L. Effective Team Building

Managers seek teamwork that manifests itself in productive work teams that are mission oriented and people sensitive. Some of the criteria for effective teaming include the following:

1. High level of interpersonal trust.
2. Goal clarity.
3. Open communications.
4. Continuous evaluation and feedback.
5. Shared influences.
6. Peer support.

Another view of the keys to effective team building include the following:

1. A need for leadership exists. A team cannot be built without a formal team leader who is committed and involved.
2. Team leaders must be willing to examine their roles in relation to the team.
3. All team members must be highly committed and willing to take responsibility for making the effort work.
4. All team members must be committed to studying their own processes and critiquing their own performance, a never-ending process that continues throughout the life of the team.
5. The team must meet regularly as a whole to share information and relate to one another face to face.
6. Team building must take place from day to day not just in special sessions or off-site meetings
7. Team building cannot be a one-shot deal but must be a continuous process of diagnosis, action planning, implementation, and evaluation.

M. Barriers to Effective Team Building and How to Deal with Them

Since the completion of the project involves the combined efforts of many people, the chances of success increase dramatically if people perform as a cohesive work unit. But project leaders face several barriers to building effective project teams, generally involving a lack of clearly defined, understood, and agreed upon results. This is not dissimilar to the examination of the objective as stated earlier.

A review of characteristics of teams might include the following:

<u>Characteristics of effective and ineffective teams</u>		
<u>Key Variables</u>	<u>Ineffective teams</u>	<u>Effective teams</u>
1. Goals	Goals unstated and are unclear.	Goals are clear. and accepted
2. Roles	Individual responsibilities unclear	Responsibilities are clear and are changed as needed.
3. Conflict	Conflict is suppressed-producing destructive attitude and behaviors	Conflicts are managed openly and accepted as a part of team development.

4. Leadership	One person is seen as the leader. Others stuck in roles	Leadership is seen as shared responsibility
5. Performance	Lack of concern for performance; objectives not met	Performance, satisfaction, and growth are valued.
6. Communications	Are guarded and restricted	Clear, open, and energetic.
7. Process	Team processes emerge which may impede team progress	Team processes are invented which ensure alignment of team objectives
8. People	Team members professional and personal needs are ignored	Individual goals are blended with team objectives
9. Power	Many team members feel powerless Power inequities cause an uneven feeling	Team members feel powerful Each one's contribution is valued

Some of the barriers that cause ineffective teams include:

1. Frequent changes.
2. Role conflicts.
3. Differing priorities, interests, and judgments of team members.
4. Credibility of the project leader.
5. Credibility of the team members.
6. Lack of commitment by some team members.
7. Fear of loss of control by some functional managers.
8. Conflicting objectives.
9. Competition over resources.
10. Project objectives not clear or measurable.
11. Communication problems.
12. Lack of senior management support/knowledge.
13. Power struggles and unequal power.
14. Unfair allocation of recognition and awards.
15. Poor selection of project manager.
16. Poor selection of team members.

Conflict is built into our work and our lives. It is most important, however, to recognize that conflict does not have to be negative. Conflict if handled properly can be a positive force in team building and mission accomplishment. The project manager or anyone else should accept and guide conflict for the improvement of the product or organization. The following are seven potential sources of conflict:

1. Conflict over project priorities. Project participants often differ over the sequence of activities and tasks to complete a project. Project team members may conflict with each other or with other support groups over priorities.
2. Conflict over administrative procedures. Several managerial and administrative conflicts may develop over how a project will be managed: the definition of the project manager's reporting relationships, definition of responsibilities, interface relationships, project scope, operational requirements, plan of execution, negotiated work agreements with other groups, and procedures for administrative support.
3. Conflict over technical opinions and performance trade-offs. In technology-oriented projects, disagreements may arise over technical issues, performance specifications, technical trade-offs, and the means to achieve performance.
4. Conflict over human resources. Conflicts may arise over the staffing of the team with people from other areas, or from the desire to use another office's people for project support even though these people remain under the authority of their functional or staff superiors.
5. Conflict over cost. Conflicts often develop over cost estimates from support areas regarding project work breakdown packages. For example, funds allocated by a project manager to a functional support group might be perceived as insufficient for the support requested.
6. Conflict over schedules. Disagreements may arise over the timing, sequencing, and scheduling of project-related tasks.
7. Personality conflict. Disagreements may tend to center on personal differences rather than on technical issues. Conflicts are often "ego-centered."

N. Managing Meetings for your Benefit

This section focuses mostly on internal meeting management although meetings are conducted both in an internal and external forum, and the lessons can apply anywhere.

Meetings are the single most time-consuming activity for most project managers. Try to minimize your attendance at meetings. The place to start is with meetings in which you are not an active participant. Many supervisors invite everyone they can think of to a meeting because (1) they are afraid someone might be offended if not invited or (2) they want everyone to hear the discussions. To minimize your attendance at meetings, make it known that you generally prefer not to attend

information meetings and would not be offended if you were not invited. You can avoid the tedium of general information meetings by telling the responsible person that you cannot attend but would like a copy of the minutes.

Even better than eliminating your attendance at a meeting is eliminating the meeting itself. Consider the weekly meeting where everyone discusses the typing workload for the week. Such meetings often go off on tangents and can take the time of many valuable people for several hours. To avoid this waste of time, each project manager should prepare a workload projection for the week and get it to the typing coordinator or chief drafter. Conflicts can then be discussed directly with the typing coordinator, meeting the objective of scheduling the week's work without wasting time at a long meeting.

Staff meetings are essential to the smooth running of a project team. They accomplish many things.

1. They provide the opportunity for communication among team members.
2. They provide a forum to discuss problems and solutions.
3. They allow for feedback from top management to the project team.
4. They are a means to make and discuss assignments.
5. They can be used as "pressure reducing" opportunities.

Several short staff meetings are much better than one long meeting. Frequent meetings allow the project manager to get information to the team while it is still pertinent to the project. Short meetings are not boring and tend not to disrupt the work schedule like a long meeting. After pertinent discussion, the meeting should be adjourned. Make the most of each meeting by doing the following:

1. Have an agenda.
2. Rank the items in the agenda with the most important items first, helping to avoid lengthy discussion of unimportant issues.
3. Allocate the amount of time to be devoted to each agenda item.
4. Include names of the people involved in each agenda item. People whose names are not listed should probably not attend. People whose names appear on only one or two items can be brought in only during those discussions.
5. Distribute the agenda to all participants at least 1 day before the meeting to let participants organize their thoughts and prepare material.

6. State the cost of each meeting on the agenda.
7. Distribute handouts ahead of time to improve preparedness and avoid the disruption caused by people at the meeting reading the handouts.
8. Schedule meetings that are 1 to 1 1/2 hours long, the ideal length for high productivity.
9. Schedule meetings during late morning so that participants will be fresh, and long discussions will be discouraged by hunger.
10. Schedule meetings to begin at odd hours, for example, 10:53 a.m. People will tend to come on time because odd times imply punctuality.
11. Start all meetings on time, even if everyone hasn't arrived. Don't repeat things for those who come in late. Latecomers will probably be on time for the next meeting.
12. Hold stand-up meetings. Meetings can be kept short by removing all chairs from the room or telling people not to sit down.

Once a meeting is over, the only tangible product is the meeting summary. As project manager, take all minutes personally. It is said that "whoever takes the minutes controls the meeting." This control may be exerted by interjecting statements like, "Could you repeat that, I didn't get it down" (slowing the pace of discussion) and "What can we conclude (terminating the discussion). Moreover, the minutes can be written to reflect your point of view. Unless you have grossly misrepresented the facts, most people will not argue about subtle differences and interpretations in the minutes.

The best way to take minutes is to list only the action items, for example, "Recreation will complete section by April 28." This technique avoids long narratives that can obscure important points. Also, the minutes should be lettered neatly so they can be copied and distributed at the meeting so that everyone can review them for accuracy and proceed immediately to implement the action items. The typing and mailing of the official minutes can then be given a low priority, earning gratitude from the secretaries, who are constantly bombarded with rush jobs.

Hold a meeting under the following circumstances:

1. A problem merits the attention of the work group because of its effect on them.
2. A problem is to be solved or information given out that is of general interest to several individuals.

3. The required decision demands the efforts of more than one person.
4. There is enough time for group action.
5. The group can solve the problem within its sphere of responsibility.
6. Group participation would result in greater acceptance of the change or decision on a problem.

Don't hold a meeting under these circumstances:

1. Time does not permit group action.
2. The problem is so limited in scope as not to justify group attention.
3. The area to be discussed or the problem has no relevance to the group.

The following are characteristics of a good meeting:

1. Meetings are announced in advance as one of the following types:
 - a. Briefing (usually an announcement).
 - b. Information and discussion.
 - c. Problem solving/brainstorming.
 - d. Problem solving/analysis.
 - e. Problem solving/solution.
 - f. Decision making.

Meeting types c through f are held only after participants have had time to study pertinent information and when participants are fresh and alert.

2. Visual aids support the main points. Slides, overhead projections, and flipcharts contain no more than three points and are presented in large, clear type.
3. Most or all participants share the sponsoring organization's views on the issues. The leader encourages discussion.
4. Any positive contribution to problem solving elicits a supportive response. Openness prevails. Participants are encouraged to contribute without risk of inappropriate criticism.
5. Member concerns are top priority. Organizational goals preside. The meeting is focused on issues, not personalities.
6. Clear and thoughtful solutions are the main objectives.
7. Meetings last less than 90 minutes or until the purpose is met (whichever comes first). Conclusions are summarized, and tasks and deadlines are set before adjourning.

The characteristics of a bad meeting are as follows:

1. Decision making meetings are filled with surprise data or incomplete information. Meetings are held at the convenience of the person calling them.
2. If visual aids are used, they contain too much copy and are difficult to read.
3. Many participants aren't sure why they're at the meeting. Even by the end of the meeting, some are still in the dark.
4. Only a few participants are talking, and they generally discourage others from participating. One person, often the leader, dominates, responding to every point.
5. Stupidity, error, and misinformation are quickly pointed out, but logic, insight, originality, and creativity are often ignored. Participants experience tension, fearing that they are inadequate or will sound stupid.
6. Internal power games or political concerns are top priority although they may never be stated openly. Individual pet projects dominate the meeting. Each meeting must have a winner and a loser.
7. "Safe" agreement and group consensus is the main objective.
8. No time limit is set. Often the meeting ends abruptly when participants say they have to leave.

We spend a lot of time in meetings and it would seem that improvement in our meeting process and products would assist in reaching the organizational objectives and, at the same time, improve our communications.

"You can tell the kind of person someone wants to be by the commitments he makes; you can tell the kind of person someone is by the commitments he keeps."

M.E. Hollan

Chapter VII

Interest Group Participation

Clearly commonalities exist between team management (Chapter 6) and interest group participation. The two have been differentiated because of the need to focus on clients, participants and opportunities that make up our professional and public external environment.

A. The Participation Process

The purposes and expectations of the participation process lie in communication, coordination, and consultation. These purposes are as follows:

1. To promote understanding of the plan or objectives of the study.
2. To assign tasks and performance goals and standards.
3. To inform the public of status, findings, and implications.
4. To determine what this process is going to accomplish.
5. To bring about public opinion/consensus on problems, needs, preference for solutions, objectives, and suggestions.

Although we tend to think about public participation as a legislative requirement found mostly in planning and environmental documentation, this process is often used in all decision making processes. Evaluating public (external as well as internal) input could result in the following actions:

1. Modifying alternatives.
2. Agreeing on specific products.
3. Developing and evaluating alternatives not yet considered seriously.
4. Improving or changing analysis.
5. Making factual corrections.
6. Explaining or commenting on other considerations.
7. Achieving consensus on the process and plan.

In other words, the results of public coordination can improve the quality of our decisions. There are several specific elements that merit further attention.

1. Communication

An effective communication and public participation program provides a two-way exchange of thoughts, information, feelings, policies, and programs among the planning team and interested individuals, groups, and public and private organizations.

Communications may be visual, written, or spoken but must be both transmitted and received. The process should begin early and continue throughout the project. An active communication system, therefore, will aid in information transfer and public participation. Throughout the process the internal public (BLM) must be treated as an information source and as a contact and information exchange point.

The easiest way to organize the communication process is to prepare a communication/public participation plan. The outline should be prepared during the preplanning phase of project management, and the plan should be prepared in conjunction with the Office of Public Affairs and the area, district and state offices. Throughout the project, this plan should be updated and modified to maintain flexibility.

The systematic determination of objectives, target policies, public involvement activities, and realistic constraints will result in a communication/public participation program tailored to the activity. The public participation plan should state the objectives at each stage and select the public to be contacted.

The following list suggests activities for a public participation process:

1. Determine the key informants or players.
2. Determine the key state and local officials and agency participants.
3. Publish newsletters.
4. Present slide shows, with or without sound.
5. Produce videotape shows.
6. Maintain a library of other plans and projects.
7. Hold public meetings and hearings.
8. Make formal presentations to civic groups.
9. Provide information through open file reports.
10. Conduct staff tours.
11. Hold public hearings at the beginning of the study.
12. Review existing data.
13. Use advisory councils and task forces.

2. Coordination

Coordination may be defined as the "act of bringing into a common action or acting together in a smooth, concerted manner."

Coordination simplifies several interrelated elements that need to be synchronized. Hence, coordination involves the development of linkage among our agencies and programs to ensure that goals and objectives are compatible.

Coordination that focuses on the planning process or project eliminates redundancy and cross purpose and greatly increases the efficiency and effectiveness of actions consistent with state director goals. Having its roots in sharing information, process, and decisions, coordination focuses on things we do together. The following principles can guide the internal and external process of coordination:

1. Conducting a direct dialog.
2. Beginning at the local level.
3. Involving all ownership and interests.
4. Considering all resources and activities.
5. Respecting all obligations and rights.
6. Acting only on consensus.

As a simple means of obtaining such coordination, a list should be compiled of all pertinent federal, state, and local, past and ongoing plans and activities. Face-to-face communication will assist in not only collecting plans but in notifying key players of the plan or project. Coordination should be undertaken with at least the following:

1. Adjacent landowners.
2. Interested parties.
3. Groups that will be directly affected by the plan.
4. Groups that may be affected by the plan.
5. Political subdivisions.
6. State legislators or the governor, as appropriate.

Early in the planning process, attempt to establish with other political entities, the governor's office, and federal and state agencies, one of the following:

1. Agreement on interagency coordination.
2. Statewide coordination.
3. A coordination agreement such as a memorandum of understanding or memorandum of agreement.

A coordinator's checklist might include the following:

1. Before coordinating with others, such as the state, determine the position your office will take. If necessary:
 - a. Check pertinent background information.
 - b. Seek your chief's guidance.
 - c. Plan a course of action consistent with current written or oral policy.
2. Review the course of action from the viewpoint of the official who will sign or approve the paper. Ask yourself these questions:
 - a. Are all facts—pro or con—given? Are they accurately stated?
 - b. Does the course of action represent a sound —the best—position?
 - c. Can I justify my proposal if called upon to do so?
 - d. Are all administrative procedures completed and accurate?
 - e. Is the paper concise and clearly written?
 - f. Would you sign the paper yourself if you were the official?
3. Realize that your paper may be modified by persons who will be asked to coordinate, approve, or sign it. After taking the needed actions above, do the following:
 - a. Determine who will coordinate the paper and ensure that each reviewer has a continuing interest in the paper's substance.
 - b. Seek your chief's guidance, if needed, to determine who would coordinate.
 - c. Map out your coordination plan. "Whose signature do I get first?"
 - d. Show your own participation on the coordination copy of the paper before obtaining any other signatures
 - e. Coordinate the paper within your own directorate first, and have your chief sign the paper so that coordinators know they're coordinating your office's position, not your own.
 - f. Face-to-face coordination is best whenever time permits or when the subject is complex.
 - g. Coordinate by telephone when feasible.
 - h. If a nonconcurrence cannot be resolved with the appropriate official, attach the concurrence to the package and submit a summary of the disputed issues to your chief. Show future coordinators the nonconcurrence.
 - i. Provide copies of papers you originate to coordinators only when they request and require them. Save paper!
 - j. Don't let coordinators "write on" your original.

3. Consultation

While consultation is part of the overall communication and coordination process, it stands apart in several respects. Consultation is seeking advice, requesting information, and asking for guidance with the purpose of interchanging opening positions and deliberations and potentially resolving differences. This purpose recognizes the knowledge and experience of those involved or interested in the management of the public lands and BLM's ultimate authority to ensure the proper management and use of the public lands.

The process of consultation at first leads to agreement on the terms, conditions, and understanding of the project/plan process. Overall, this process leads to improved coordination and communication. By actively seeking input during the preplanning phase and by maintaining consultation throughout the plan, you can improve coordination and two-way communication. The act of seeking greater consultation will drive the coordination and communication process.

The considerations of internal consultation are as follows:

1. As part of the system, participants in internal consultation usually know the language and background of the problem.
2. As part of the system, participants may be part of the problem.
3. Usually participants will give more time to the client because of availability and cost.
4. You may encounter resistance because of vested interests and organization politics.
5. Participants in internal consultation may tend to tell you that things are okay.
6. Participants usually know the norms and the political realities better than nonparticipants.
7. Participants are not seen as "prophets"--they lack a power base.
8. Participants know more about potential linkage with other parts of the system.
9. Participants usually are more identified with systems' needs.
10. Participants are a known quantity.

The considerations of external consultation are as follows:

1. They are usually more influential with the client system.
2. They usually have had more varied experiences.

3. They are potentially more objective about the client and the problem.
4. Continued use is usually tied to results.
5. They are usually aware of other resources that might be helpful to clients.
6. A client is usually more open with them.
7. They are free to reject the assignment.
8. They are in a position to introduce new things.

Some of the ways in which consultation can be formalized include the following:

1. Memorandum of agreement (MOA).
2. Memorandum of understanding (MOU).
3. Policy steering committee.
4. Agreement to share resources and information.
5. Cooperative agreement.
6. Specific requests for information, knowledge, and experience.

B. Advisory Groups

Advisory groups are established to provide community perspective on agency projects and programs. Serving as long-term participants in a project, advisory group members continue to learn as the project proceeds, make a commitment to the planning process, and serve as a good sounding board for new ideas. Some group members may adopt some of the goals of the project and communicate them to others.

Advisory groups have many functions:

1. Represent points of view or special interests.
2. Provide for varied representation throughout the project.
3. Express community/state values or needs.
4. Provide new ideas and potential information sources.
5. Direct or guide public participation programs.
6. Provide information to interest groups wanting it.
7. Monitor agency progress.
8. Assist in resolving controversial problems and evaluating complicated issues.
9. Perform technical reviews.
10. Respond to agency recommendations.

Successful citizen advisory groups consist of a balanced mix of project interest groups, including general citizen interests. Group members must understand their roles and responsibilities. Advisory group

members advise but have no management authority. They should be oriented at the beginning of the process and be kept well informed throughout. They should develop and embrace reachable goals and have specific tasks. To be effective, advisory groups need staff support.

C. Levels of Responsibility

A project or a plan is not conducted in a vacuum. It is prepared using a hierarchical approach involving levels of responsibility and authority, coordination and cooperation. The state director, district manager, resource area manager, and everyone associated with the plan must function as a team and be responsible for certain actions. Responsibilities are found in the Delegation of Authority Manual.

For example, the state director is responsible for contacts with the governor, the Washington Office, and if needed, certain interest groups. The district manager is responsible for coordinating with local interest groups, key state and local government contacts, and advisory boards. The area manager is responsible for technical coordination with the government and is the lead public contact.

Each team should outline the levels of responsibility so that someone controls all communication and coordination points.

<i>Planning--your attempt to protect yourself against the future.</i>

D. Working with the Media and Writing Effective News Releases

Members of the print and broadcast news media are an important audience of public participation programs. Reporting of public meetings and major decisions can be better and more accurate if the news media are kept informed on issues of public concern and reporters are educated on planning methodology, the issues of the study, and the public's role in the program. Editors and reporters can help encourage public involvement and understanding through supportive editorials, well-placed stories, substantive articles, and access to broadcast news and public affairs programs.

Building good press relations requires openness and substantive materials developed with an understanding of the needs of broadcast and print media. Personal contact with reporters and editors is vital.

Strong media links can be built by conducting editorial briefings, meeting with individual reporters, holding press briefings before major public events, and preparing adequate briefing materials that meet reporters' needs. Agency people especially those in public affairs should work with individual reporters and editors to write articles and editorials. Press advisories and releases should be timed to meet the needs of reporters. In addition, agency people should aggressively pursue broadcast opportunities such as talk and public affairs programs. BLM might consider inviting a reporter or editor to sit on the advisory group to aid public education and participation.

E. Building and Using Mailing Lists and Selecting Potential Participants

A mailing list is an important communication tool to reach broad or targeted audiences with agency messages. The better the mailing list, the better the public outreach and information. A well-developed mailing list will reach potentially active participants--people who want to be involved or informed. A complete mailing list meets political goals important to the success of an agency action.

Great care must go into preparing a mailing list that includes active participants, appointed and elected officials, interest groups, and potential participants. Agency people, however, should be selective about whom to add to a mailing list to keep it manageable. The list should be divided into categories that allow the agency to target messages to specific audiences if desired. Mailing lists should change and expand over time. They must also be maintained to remain effective, although this maintenance can be time consuming and expensive.

Mailing lists are easy to prepare, use, and modify because of the improved use and programs for desktop computers. The use of computerized mailing lists can greatly improve sorting capabilities, speed up the entry of names, and make list management more flexible.

Schultze's Speculation: <i>If you can't be right, be wrong at the top of your voice.</i>
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F. Organizing Good Newsletters, Fact Sheets, and Other Publications

Education and the dissemination of information are essential to successful public participation. The more substantive information citizens have, the better they can make decisions. Newsletters and brochures are two common tools used to inform the public.

Brochures and other nontechnical materials appeal to general audiences. Meeting the needs of people who stay involved by staying informed, these publications can be examined at the reader's convenience. Unlike the mass media, the agency controls the content and distribution of its publications. Most importantly, publications teach by facilitating knowledgeable choices.

To capture and hold the attention of readers, publications must be well conceived and written and thoughtfully designed and printed. The process requires a long lead time. A design theme should be followed through all publications to maintain consistency and provide strong identification to the project. Materials must read well, be accurate and thorough, and be well edited. Finally, materials must be presented in a timely manner with distribution preceding each major public consultation stage. A publication program must maintain some flexibility to develop materials that solve problems or help projects over difficult periods.

Printed materials should explain how a proposed action will affect the audience. Copy should be easily understood and varied in context and detail to meet the needs of targeted audiences. Technical jargon should be avoided. Graphics and illustrations should be used to ease understanding. Effective writing should present outcomes of alternative actions.

G. Effective Public Meetings

Public meetings inform people, allow for two-way communication, and generate interest and involvement in a project. They should be used selectively, be integrated with other public participation techniques, and be designed to meet goals and objectives. By definition, public meetings are agency-sponsored gatherings, open to the public, and held to inform or involve the public in the planning and decision making process. A public hearing is a type of public meeting, generally a formal and highly structured meeting. The public

includes any person or organization other than members of the agency or consultant staff.

Meetings or hearings should be well organized, have measurable objectives, and have an agenda that details assigned responsibilities and work to be accomplished. Formal presentations should be kept short to bring all attendees to a common level of knowledge on the subject matter. The meeting should have the facilities and space needed to meet the meeting goals. "We-they" attitudes should be avoided, as should the use of technical or professional jargon. The moderator should summarize the decisions made before adjourning the meeting. Important meetings should be evaluated by participants and staff.

The 18 steps to a better meeting are as follows:

1. Plan the meeting carefully: who, what, when, where, why, and how many.
2. Prepare and send out an agenda in advance.
3. Come early and set up the meeting room.
4. Start on time.
5. Get participants to introduce themselves and state their expectations for the meeting.
6. Clearly define the roles of participants.
7. Review, revise, and order the agenda.
8. Set clear time limits.
9. Review action items from the previous meeting.
10. Focus on the same problem in the same way at the same time.
11. Establish action items: who, what, when.
12. Review the group memory.
13. Set the date and place of the next meeting and prepare a preliminary agenda.
14. Evaluate the meeting.
15. Close the meeting crisply and positively.
16. Clean up and rearrange the room.
17. Prepare the group memo.
18. Follow up on action items and begin to plan the next meeting.

H. Effective Presentations at Meetings and Hearings

Public presentations play a major role in public participation programs. They offer opportunities to communicate in person, educate, and persuade. Many people learn best by listening and viewing, and then

asking questions. Recognizing some simple rules for making presentations and paying attention to style and process promotes effectiveness. The impact of presentation is, in part, related to the human interaction involved. Making a strong impression and passing on important information can help to reach many planning and participation goals.

Effective presentations use several human senses (sight, sound, and occasionally touch) and an understanding of social psychology as applied to the meeting or hearing room. Information presented must be new and useful. Don't just repeat information in printed materials. Assume the attendee has already read handouts and newsletters. Highlight essential information presented in printed materials, and expand on it. Establish as much human contact as possible. Acknowledge people in the audience you know, Don't speak down to the audience; speak directly to them. Use several different elements in the course of a large meeting, such as formal speech, questions and answers, and possibly interactive exercises. Use graphics and audio-visual aids to help you communicate and educate. Graphics help the audience conceptualize and understand complex material. Make the room work for you by controlling such environmental factors as lighting, seating, and temperature. Always recognize that you have a captive audience with members present to listen and talk. Above all else, plan your presentation. Organize your thoughts. Know what you will say.

You are what you do when it counts!

I. Graphic Displays

Graphic displays are a prime means for tracking costs, schedules, and performance. Good graphics displays do the following:

1. Show and tell facts effectively.
2. Save the reader's time since diagrams increase the velocity of communications.
3. Direct the audience's attention to aspects deemed important.
4. Give the audience a context within which to perceive important facts.
5. Show statistical relationships more clearly than words or numbers permit.
6. Plot relationships that could not otherwise be understood.
7. Illustrate non-visual concepts visually
8. Improve the effectiveness of communicating visual factors.

Graphic displays serve other purposes as well:

1. Embellish a product or presentation.
2. Prove how much research we have done and how much we know.
3. Break up the greyness of a page's text.
4. Gain creditability, status, the appearance of being scientific.

Modern computer packages can greatly simplify the preparation of graphic displays.

J. Responsiveness Summaries

When dealing with a formal public plan or project, one can use a responsiveness summary to clarify comments and state agency responses to them. This summary is a communication tool to inform the public on how their comments are used. It keeps the public informed about the current state of a project and gives decision makers and reviewers an overview of the public's reaction and changes made to accommodate the public.

Responsiveness summaries should be brief and concise documents, recording the comments and responses of the public and government agencies. Complex issues and comments should be broken down into parts. Similar comments from several groups or individuals should be rephrased into a single comment with a single response, unless the rephrasing would obscure important variations. Comments should be rephrased where needed for clarity or conciseness. An easy-to-understand format should be used. Negative viewpoints should be avoided. The summary should honestly assess public comments.

K. Budgeting for Public Participation

Public participation activities may be costly in time and materials. Many agencies have been in the difficult position of facing an active public desiring information and participation but having an inadequate budget and too little time to meet public demands. The best way to plan for adequate involvement is to prepare a realistic workplan and budget. Experience in conducting and determining the costs of participation programs is useful when preparing a budget. Precise costs are hard to predict because different problems require different solutions and because printing, advertising, and space rental costs vary

from one part of the country to the next. Costs can be held down in many ways, such as by using volunteers and existing institutions and support.

Public participation budgets require direct and indirect costs. Direct expenses cover outside services for which a bill is presented to the agency. Direct costs include contracting for preparing public information materials, printing, renting a hall, and buying advertising space in a local newspaper. Indirect expenses are usually incurred as a part of the agency's normal operations, such as the hours spent preparing and maintaining a mailing list, planning logistics for a public meeting, or writing and editing a brochure. Indirect costs can be high, and should be budgeted so that staff time is available during busy periods.

<u>Budget Summary</u>		
Activity	Public Information and education	Consultation advisory groups Other groups
<u>Total Direct Expenses</u>		
Personnel:		
Professional		
Clerical		
Professional Services		
Graphic Design and Production		
Audio-Visual Design and Production		
Printing		
Postage		
Equipment Rental		
Facility Rental		
Mailing List/ Mailing Service		
(non-personnel costs)		
Telephone		
Advertising		
Travel		
Other		
<u>Indirect Expenses:</u>		
Agency Personnel		
Professional		
In-house production		
Agency Overhead		
Other		
<u>Grand Total:</u>		

Budgets may be prepared in many ways. The Budget Summary that follows gives managers and other public participation professionals a simple summary of all public participation expenses. The Budget Summary offers a system for understanding budget allocations and implications using various techniques.

The budget should be based upon the workplan and broken down in quarterly or bi-annual units, to reflect variations in activities over time.

It is not possible to suggest a percentage of total budget that should be applied to public participation. A public participation budget should meet the needs of a given project or solve a specific set of problems. In every case, public participation budgets should meet identifiable objectives. Before preparing a budget, target audiences must be defined, goals stated, and problems determined. One effective way to establish a budget is to build a program around the need to solve problems and face issues. Estimate the cost of an ideal program, and then cut back the budget from the ideal to the real. By approaching the process in this manner, you will have faced the difficulty of cutting projects and programs in the context of meeting objectives. And you can still develop a sound program based on budget, staff, and other limitations. Each tool or technique chosen should be result oriented and meet a stated objective.

Etorre's Theorem: <i>A day without a crisis is a total loss.</i>
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Chapter VIII

Communication and Human Relations

People communicate in several ways, including speech, writing, and body language. Effective communication requires that one form be reinforced by another. At the same time human relations skills are based on adequate communications. Chapter VIII focuses on the skills and interpersonal relations that will lead to success in projects and in other management initiatives.

A. Speaking Effectively

Because most communication is oral, the ability to speak clearly and concisely to both individuals and groups is vital. One key to speaking effectively is to ensure that the message is clear and concise so that the audience can understand its significance. To ensure that your message gets through, take the following measures.

1. Reinforce the verbal message using written communication and body language.
2. Repeat the message several times in different ways.
3. Look for feedback to be sure your message is properly received and understood.

For example, when you prepare any kind of speech, organize it into the following four parts:

1. Preview what you are going to say.
2. Explain why it is important for the audience to listen.
3. Deliver the message.
4. Summarize the important points.

This approach builds in several opportunities to repeat the message. While it may seem like overkill, the average person must hear a message at least three times before retaining it. The skillful speaker delivers a message several times, each time slightly different, assuring the message is received without boring the audience.

Evidence of audience feedback concerning a message could include the following:

1. Taking notes. If people are writing down key ideas, you are probably being understood.
2. Asking questions. If the audience isn't asking questions, it may not be understanding you. Find out by asking some probing questions.
3. Body language. Watch for such signs as attentiveness, loss of concentration, or confusion.

B. Writing More Effectively

Writing memos is a common, though sometimes overused, method of communication. Use the following tips to write more effective memos:

1. Use memos as "ticklers" to make sure others perform important tasks.
2. Eliminate meetings by using memos to communicate easily understood information to several people.
3. Do not designate a memo for internal distribution unless you want the memo to appear especially authoritative.

Letter writing is another fundamental communication skill important to the project manager. The most effective letter is one page long and contains three paragraphs. The first paragraph briefly summarizes the subject; the second amplifies the subject; and the third tells the reader what you want done with the information in the letter. Although letters cannot always be written this way, brevity is an essential of a well-written letter. Socrates once said, "If I had more time, I would write it shorter." This paper presents several examples of how to prepare written documents.

C. Using the Telephone Effectively

People so commonly use the telephone that they forget how unnatural it is as a communications tool. The physical position required to use a standard telephone contorts the body and effectively paralyzes the side on which the receiver is held. More important, using the telephone does not permit the speaker to use body language to reinforce the oral message. This is why instructions given by telephone never seem to be carried out as well as those delivered in person. Follow these tips to increase your effectiveness on the telephone:

1. Make an agenda before calling. When returning calls, use the back of the message slip for the agenda.
2. Keep your agenda slips when you call someone who is not in, and leave a message for them to return the call. Keeping the agenda slip prevents you from forgetting topics when the person calls back and reminds you to call again if the person does not return the call.
3. Always give your telephone number when leaving a message to call back. Even if your business card is on file, you'll get a faster response if the person doesn't have to search for your number.
4. Always keep a pencil and note pad handy when making or answering phone calls to avoid breaking a chain of thought while searching for a pencil or paper.
5. Make your calls in groups to allow you to gear your mind to the peculiarities of communicating by telephone and to shorten the length of each call.
6. Reinforce your telephone calls by preceding or following them with written communications. If the message is important, you may wish to call a meeting to provide more reinforcement.

Additionally you might want to focus on telephone courtesy in your phrases. Here are some suggestions:

THIS IS BETTER	THAN THIS:
Would you repeat your name, please?	What name did you say?
Would you spell that, please?	What? Speak louder, I can't hear you
I'm sorry, I'll check for you	OK. Let me see if I can find out about it from someone.
I'm sorry, I didn't get that.	I can't understand what you are trying to say.
It will take a minute or so. Would you like for me to call you back?	Hold it, I'll see what I can do.
Thank you for waiting. I have that information now.	You are out of luck. I can't find it.
I'm sorry, Mr. XX is away from his desk.	He's still out to lunch. I don't know when he'll get back.
May I help you?	
Thank you for calling.	OK. So long.
You are welcome Ms. XX. Good-bye.	All right. Bye

Remember every phone call has three important parts: the preparation, the conversation, and the follow-up. Each part is important to the success of BLM and to you.

D. Techniques to Save Time and Block Interruptions

1. Handle a paper only once, if possible.
2. Have a light lunch so as not to get sleepy in the afternoon.
3. Carry a 3- by 5-inch card to jot down ideas or suggestions.
4. Always reduce an item to writing. Do not trust memory.
5. Carry something to read or review in case of "waiting time."
6. Put signs in the office to remind you and others how important time is to you.
7. Question, "Would anything terrible happen if I didn't do this?"
8. For unpleasant tasks, start with a 10-minute session.
9. Concentrate on one thing at a time.
10. Set deadlines for yourself and for others.
11. Delegate everything that can be delegated.
12. Keep letters short. Jot down the main points first before writing the letter.
13. Use the Dictaphone if at all possible.
14. Have a place for everything; put everything in its place.
15. Save necessary trivia and deal with it once a month.
16. Keep a 40-hour week maximum.
17. Have a time log kept on any item that looks time consuming.
18. Have the secretary screen mail and phone calls.
19. Keep small talk to a minimum.
20. Make speedy decisions; 80 percent can be made now.
21. Work with response deadlines. Eliminate the "as soon as possible" message.
22. Inform your secretary when you don't want to be disturbed. The average manager is disturbed every 8 minutes.
23. Consider meeting callers outside your office.
24. If you don't want someone to stay long, remain standing. Do not sit down.
25. Work on the appointment system as much as possible.
26. Have the secretary situated between your office and callers.
27. Go to the other person's office.
28. Limit the time of visits, e.g., "I have only 15 minutes. Can we deal with this matter in that time?"
29. Close the door (if you have one) when you don't want to be disturbed.
30. Leave an hour of your day unscheduled.

E. How To Get More Done In A Day

One of the keys to success is to manage each workday as if your career depended on it. And in a way, it does.

1. Plan each workday the day before. Make a list of objectives, rank them in priority and estimate the time each will take.
2. Know your rhythms and blues. Schedule unimportant work during your blues time.
3. Do a preview review. In the morning run over the day in your mind.
4. Be ruthless with time wasters. Develop a mind set that judges each activity by whether it brings you closer to your goals.
5. Deal with the worst first. Deal with the toughest issues/people first.
6. Find out how you spend your days. Keep a log and review it.
7. Work with people who keep their word.
8. Build on concentration blocks. Set aside a portion of each day to think, create, and plan.
9. Plan your time. Plan for concentration time in the morning and meetings in the afternoon.
10. Keep impeccable files. Be able to put your finger on exactly the data you need.
11. Organize your tools. Do whatever it takes to get the job done.

F. Motivation

Project managers must understand human behavior, perhaps even more than should functional managers because project managers must continually motivate people toward meeting project objectives. Motivation cannot be generated without at least a fundamental knowledge of human behavior.

The functioning of employees may be looked at in many ways. For example, Douglas McGregor advocated that most workers can be placed into one of two groups. (note. there are many theories of motivation and working as well as organizational structures to understand and respond to culture of groups, therefore the following is only a summary of few different positions). What is often referred to as Theory X assumes that in the first group the average worker is inherently lazy and requires supervision. Theory X further assumes that:

1. The average worker dislikes work and avoids it whenever possible.
2. To induce adequate effort, the supervisor must threaten punishment and exercise careful supervision.
3. The average worker avoids increased responsibility and seeks to be directed.

The manager who accepts Theory X normally exercises authoritarian control over workers and allows little participation during decision making. Theory X states that employees generally avoid decision making. Theory Y employees, however, are willing to get the job done without constant supervision. Theory Y assumes that:

1. The average worker wants to be active and finds satisfaction in physical and mental effort.
2. The greatest results come from willing participation, which will tend to encourage self-direction toward goals without coercion and control.
3. The average worker seeks opportunity for personal improvement and self-respect.

The manager who accepts Theory Y normally advocates participation and a management-employee relationship. But when working with professionals, special care must be taken because these individuals often pride themselves on their ability to find a better way to achieve the result, regardless of the cost. The risk of an employee finding a better way to achieve the result rises with the number of professional degrees an individual has. This risk poses a problem since the functional manager determines "how" the job will be done once the project manager states "what" must be done. Project management must take a vested interest, in that a person given free rein to accomplish an objective must fully understand the need for time, cost, and performance constraints.

Another view recognizes the existence of a hierarchy of needs that motivate individuals toward satisfactory performance. A. Maslow was the first to describe these needs. The following table looks at the implications of Maslow's Hierarchy.

Maslow's Hierarchy

Hierarchy Level	Reward and Punishment	Dependency	Information Required to Motivate Person
Self-Actualization	Working toward one's own goals	High degree of autonomy	High degree of knowledge and expertise about people, goals, values, and barriers to goals
Ego	<ul style="list-style-type: none"> -Respect - Achievement -Confidence -Ability to do - Respectability 	High degree of interdependence self-related to others for psychological rewards, identification with and respect from others critical	<p>Substantive knowledge and responsive around:</p> <ol style="list-style-type: none"> 1. feeling of competences, belonging, dependence. 2. desire for control 3. current existential problems
Social	<ul style="list-style-type: none"> -Acceptance -Warmth -Concern -Rejection -Coldness -Hostility -Indifference 	High degree of dependence on others for external material rewards often subject to coercion from others	
Security	Protection from danger and deprivation		<p>Security, psychological knowledge of state of deprivation and external needs.</p> <p>Adequate subservience and over-compliance is usually overt behavior</p>
Psychological	Food, rest, exercise		

Project managers must motivate temporarily assigned people by appealing to their desires to fulfill the highest two levels. Of course, the motivation process should not be developed by making promises that the project manager knows cannot be kept. Project managers must motivate by providing the following:

1. A feeling of pride or satisfaction for the person's ego.
2. Opportunity, approval, recognition, advancement, growth, responsibility, and, if possible, promotion.
3. A means of doing a better job, not a means of keeping a job.

Motivating employees so that they feel secure on the job is not easy, especially since the project will eventually end. Methods for producing security on a project include

1. Let your people know why they are where they are.
2. Make people feel that they belong there.
3. Place people in positions for which they are properly trained.
4. Let employees know how this effort fits into the big picture.

Since project managers cannot motivate by promising material gains, they must appeal to each person's pride by

1. Adopting a positive attitude.
2. Not criticizing management.
3. Giving all people the attention they need.

The following methods can be used to motivate project people:

1. Giving assignments that offer challenges.
2. Clearly defining performance expectations.
3. Giving proper criticism as well as credit.
4. Giving honest appraisals and rewards based on performance.
5. Providing a good working atmosphere and developing rapport with subordinates.
6. Developing a team attitude.
7. Providing proper direction, even for Theory Y employees.
8. Trying to keep policy from having a harmful effect.
9. Letting people know what's going on and drawing from their expertise.

Another way to motivate is to apply the technique of visioning. In visioning the leader or project manager projects a 'vision' or a compelling image of what the organization or project can become in the future. Visioning can take three forms:

1. Paint a vivid picture. Look for metaphors and images that capture the vision forcefully and make it accessible to others.
2. Take expressive risks. Tapping into people's emotions through a display of your own passion is a valuable tool in selling your vision.
3. Set the example. Live out the new values you espouse, and show by your choices that you mean what you say.

F. Human Relations Techniques

Project managers who know the project management process will fail unless they can also successfully deal with people. For example, smiling has an amazing effect upon people. It promotes a happier, more cordial and interested attitude and causes people to like you more. Smiling is one of the easiest human relations techniques to apply. When you're dealing with people and you realize you haven't smiled for some time, it would be well to start immediately. After a while smiling becomes a habit.

1. Listening

It has been said that the higher the level of responsibility, the less important it is to speak and the more important it is to listen. George Bernard Shaw once suggested, "Never overlook a good opportunity to keep your mouth shut." A good way to test your listening skills is to give yourself a mental kick every time you begin a sentence with "I think" unless someone has asked your opinion. If you have a set of mental bruises at the end of the day, you should evaluate how effectively you are listening.

Probably the greatest single impediment to effective listening is the urge to interrupt a speaker to interject your own viewpoint. This interruption is not only rude, but it also breaks the other person's thought patterns and reduces the effectiveness of the conversation. It is far better to hear the person out, keeping your thoughts to yourself until the person is finished. This approach allows you to withhold your remarks until you have heard all the facts. Reducing the tendency to interrupt is much more difficult than it sounds. It takes constant attention, practice, and concentration.

Being a good listener involves two ingredients. One is asking questions about what the person has done, or is interested in, which is as easy and natural as being interested in the person's job, responsibilities, previous occupation, and goals. The other ingredient

is listening carefully to the person's answer, which will typically trigger another question.

The person who is asking questions and listening intently is a good conversationalist, allowing the other person to do most of the talking. We all like to talk when someone is interested in us. Listening and asking questions shows interest.

One of the best ways of overcoming people who are unhappy with you or have a chip on their shoulder is to listen to their story from beginning to end without interrupting. Take a real interest in the story and ask questions to clarify understanding. Then speak in favor of their story from their point of view. The chronic kicker, even the most violent person, will typically soften and be subdued in the presence of a patient, sympathetic listener. Speaking sympathetically about a person or from a person's point of view gives the person a feeling of importance. Also, do not make the conversation any more "authoritative" than it already is by virtue of your position in the organization.

Many people fail to make a favorable impression because they do not listen attentively. This behavior is a sign of not being interested in what a person has to say. A person practicing listening skills should listen as though required to report the conversation to another person later in the day.

Other suggestions can also improve listening skills:

1. Listen for an overview; don't concentrate on every detail. Too much attention to details can obscure the central meaning. Listen "between the lines."
2. Minimize distraction. Close the door, turn off the radio, and have your secretary hold phone calls.
3. Avoid mental side trips. Instead of thinking about what you are doing in the evening or what you will say when it is your turn to talk, think about what the speaker has been saying.
4. Take advantage of the fact that you think faster (600 to 800 words per minute) than a person speaks (100 to 200 words per minute). Listen for feelings and emotional catchwords as well as content.
5. Summarize what the speaker has been saying and "play back your summary" to the speaker for verification.
6. Seek the answers to these questions: What does the speaker mean? How does the speaker know? What is being left out? What is the speaker feeling?
7. Express your own feelings.

8. Display your interest in what is being said.
9. Anticipate what the speaker will say next.

The following skills separate a good listener from a bad one.

<u>Keys to effective listening</u>		
The keys	The bad listener	The good listener
1. Find areas of interest.	Tunes out dry subjects.	Seizes opportunities; asks, "what's in it for me?"
2. Judge content not delivery.	Tunes out if delivery is poor.	Judges content, skips over delivery errors
3. Listen for ideas.	Listens for facts.	Listens for central themes.
4. Be flexible.	Takes intensive notes using only one system.	Takes fewer notes, using four different systems, depending on speaker.
5. Work at listening.	Shows no energy output. attention is faked.	Works hard, exhibits active body state.
6. Resist distractions.	Distracted easily.	Fights or avoids distractions, tolerates bad habits; knows how to concentrate.
7. Exercise your mind.	Resists difficult material; seeks light recreational material	Uses heavier material as exercise for the mind.
8. Keep your mind open.	Reacts to emotional words	Interprets color words; does not get hung up on them.
9. Capitalize on the fact that thought is faster than speech.	Tends to daydream with slow speakers	Challenges, anticipates mentally summarizes weighs the evidence, listens between the lines to tone of voice.

2. Body Language

An often overlooked method of communicating is through body language. Body language is one of the best methods of obtaining feedback because people are generally unaware of the messages they are transmitting through body language, and there is less opportunity for deception.

Following is a list of common attitudes communicated nonverbally. Being aware of these subtle meanings not only will help you receive information more accurately, it will allow you to reinforce what you say through proper body language to ensure that listeners receive your messages.

1. An active listener will establish eye contact, nod at appropriate points, and take notes carefully.
2. Posture reveals much about how somebody is listening and responding. For example,
 - a. Dominance is communicated by leaning back when listening or talking, by placing hands behind the head when speaking, or standing erect when speaking before a group.
 - b. Open hands, uncrossed legs, and an open and exposed chest suggest openness to ideas and people.
3. Arms across the chest, crossed legs, tightened fists, and sitting reversed in an armless chair suggest that a person is threatened. These are defensive gestures.
4. Frowning, placing a hand over the mouth, a nose wipe, and a finger along the side of the nose, suggest suspicion, evaluation, or disagreement.
5. Nervousness is communicated by rapid smoking; fidgeting in a chair; covering a mouth while speaking; perspiring hands, face, or forehead; wringing hands, avoiding eye contact; pulling on the ear lobes; or wiping hands on clothes.
6. Boredom is communicated by doodling, drumming fingers on the table, rapid kicking of the foot, or staring off into space.
7. Wringing of hands, running a finger through the hair, rubbing the back of the neck or the temples, fingers flicked in the air, and kicking imaginary objects suggest frustration.
8. When people are evaluating an idea, they may stroke their chin or nose, chew the end of their glasses or pen, tilt their heads back and look toward the ceiling, or leave the table to stretch or take a walk.

3. Personal Interest

Taking an honest interest in the person or group is probably the best overall way to get them to like you. You can make more friends and gain more cooperation in two weeks by becoming interested in people than you can in two years by attempting to get other people interested in you.

If you need cooperation from people, take a moment to show your interest in their work and situation. Then, stressing commonality, talk about the job that needs to be done by you and them, not the help you

need from them. Urge that it is in everyone's interests to do it well. Then you will have the greatest chance of getting their help. Be genuinely interested in people.

Always find a reason to be sincerely complimentary. Avoid being critical, particularly when it can in any way be taken personally. Disagree judiciously, and always in regard to the situation, never the person. If possible, find reasons to see and support the other's viewpoint. Avoid making assumptions. Many times, people do things because of some outside, unknown reasons, such as they have been told to, or the organization above expects them to act in a certain way. Always be sincerely complimentary. People will feel important and will more likely cooperate with you.

4. Arguing

Arguing means telling other people that they are wrong and establishes or infers personal attacks. Arguing is not the same as disagreeing or debating. Disagree if it serves a purpose and is not taken personally. Don't contradict a person, but begin by saying something like "From my experiences I have found that . . ."

Usually an argument ends with the contestants being more firmly convinced than ever that they are right. You can't win an argument because if you lose it, you've lost it, and if you win it, you've lost it. Why? Consider if you triumph over the person, shoot the argument full of holes, and prove the person to be totally wrong. Then what? You will feel fine, but you have made the other person feel inferior. You have hurt that person's pride and caused resentment against your triumph.

The only way to get the best of an argument is to avoid it. You can show a person to be wrong by a look or gesture just as effectively as you can say it in words. If you are wrong, admit it quickly, openly, and with enthusiasm. Usually, the other person will then take your side.

Say about yourself all the derogatory things you know the other person wants to say, before the person has a chance to say them. You will take the wind out of the person's sails and almost certainly cause the person to take a generous, forgiving attitude that will minimize your mistakes. For example, when an irritated person doesn't agree with you, consider responding like this: "Come to think of it, I don't entirely agree with it myself. Not everything I said appeals to me right now. I am glad to learn what you think on the subject." What can you say to a response like that?

Gordon's First Law: *If a research project is not worth doing, it is worth not doing well.*

5. Tact

When we are right, let's try to win people gently and tactfully to our way of thinking. When we are wrong, and we all are surprisingly often, let's be honest with ourselves. Let's admit our mistakes quickly and with enthusiasm. This technique will not only produce astonishing results, but believe it or not, it's a lot more fun than trying to defend oneself.

When talking with someone, don't begin by discussing the things on which you differ. Begin by emphasizing, and keep on emphasizing, points of agreement. Stress that you are both striving for the same end and your only difference is one of method, not purpose.

Merely stating a comment or a series of comments is often not enough. The big impact is made by being vivid, interesting, and dramatic. Be loud and clear. Use lots of smiling and facial gestures, voice variations, hand and body gestures, and illustrations. Be strong and confident. No one likes to take orders. Asking, rather than telling is a technique that saves a person's pride and gives a feeling of importance, making one want to cooperate instead of rebel.

6. Communication Channels and Networks

Communication networks in organizations have two basic channels—formal and informal. Both are important, both exist all the time, and both carry messages throughout the organization.

The formal channel is the official one established by the organization. This channel takes the form of official memos and reports that make their way up, down, and across the organization. The channel that tends to become easily clogged is the upward communications channel.

The informal channels, often called the grapevine, exist outside the organizations official channels. Informal channels evolve in several ways:

1. Working relationships created by the flow of work or the tie-in with other departments or functions.
2. Social relationship created by clusters of people who join together because of common interests, activities, or backgrounds.
3. Outside relationships created by contacts the person may have with others outside the organization.

Information carried by informal channels may be accurate, but it is often badly distorted. Smart managers know they cannot stamp out the grapevine. It will always exist. So instead of condemning or ignoring it, these managers listen carefully to what is being transmitted by the grapevine, respond to those messages whenever necessary, and use the grapevine themselves as another channel for their own messages. In fact, whenever formal channels break down in an organization, the informal channels become the main means of communication.

A problem in communicating a message is that the mental image a manager has when using a word may not be the same mental image the receiver has when hearing or seeing it. Communication is most effective when two people speak the same language, have had similar experiences, and share the same goals and interests.

Probably the greatest obstacles to the communication process is the set of "filters" that both the sender and the receiver have. These filters represent assumptions, biases, ideas, attitudes, and beliefs that each person has accumulated over a lifetime. What we tell another person is usually "filtered" according to what we feel the other needs to know or will understand.

One of the unfortunate parts of the filtering process is that to the extent information is withheld, the other person is forced to guess in an attempt to fill in the missing parts. Consequently, withholding information often generates more distorted messages than a more open communication process would create.

The distance of the channel and the number of links in the transmitting process may distort the message. In addition, the environment may affect how the message is transmitted and how it is finally received. Messages transmitted at work may be seen differently from those transmitted at home or in the neighborhood tavern. People listen selectively; they hear what they want to hear. They magnify what is pleasing and minimize or block out what is unpleasant.

Managers must clarify in their own minds what they want to transmit. They must put themselves in the receiver's frame of reference to try to see things from the receiver's point of view.

But sometimes the receiver may not be interested in tuning in on the manager's frequency. If the message is going to be delivered, it may have to be sent on the receiver's frequency. That's why some managers ask the receivers what information they would like to have, instead of assuming that whatever the manager has to say will be of

interest to the receiver. In the end, the most important thing is not what the manager sends but what the receiver understands.

In one-way communication you give out information, allowing no questions from the audience. In two-way communication the speaker and audience interact by way of comments and questions. One-way communication has the following advantages and disadvantages:

Advantages

1. It's faster.
2. The listener has most of the responsibility.

Disadvantages

1. High errors.
2. Low performance.
3. The boss gets no feedback.
4. Stress from audience.
5. High frustration from audience.
6. It creates unsuccessful and no competence situations.
7. No way to self-correct.
8. Needs immediate feedback.

Two-way communication has the following advantages and disadvantages:

Advantages

1. Results in high performance.
2. Is productive.
3. Shows care when willing to spend time.
4. Ensures clarity.
5. Involves less stress than one-way communication.
6. Results in a higher level of confidence than one-way communication.

Disadvantages

1. Takes more time than one-way communication.
2. Can be more confusing.
3. Fosters dependency.
4. Lessens initiative.
5. Quick learners will be frustrated. Take quick learners to the side and let them know that you appreciate their patience.

Use one-way communication when:

1. You need to save time.
2. You are addressing large groups.
3. You assume the task is easy.
4. You want to develop your people instead of spoonfeeding them.

Use two-way communication when

1. You need accuracy.
2. You need morale.
3. You assume things.

H. Communication Problems

Thomas Gordon listed 12 "roadblocks" to good communication.

1. Ordering, Directing, Commanding: *"You must....," "You are not allowed"*
2. Warning, Admonishing, Threatening: *"If you do that then....," "You shouldn't do that."*
3. Moralizing, Preaching, Imploring: *"If you want to do the right thing,...," "Please don't do that."*
4. Advising, Giving Suggestions or Solutions: *"If I were you,...," "May I suggest..."*
5. Judging, Criticizing, Disagreeing, Blaming: *"That's a dumb move....," "I strongly disagree"*
6. Persuading with Logic, Lecturing, Arguing: *"Let's look at the data." "The right way to do this is..."*
7. Praising, Agreeing, Evaluating Positively, Battering Up: *"What a great idea." "Now aren't you creative."*
8. Name Calling, Ridiculing, Diagnosing: *"You should be ashamed of yourself for..." "You blew it."*
9. Interpreting, Analyzing, Diagnosing: *"What they meant to say was..." "You were just frustrated."*
10. Reassuring, Sympathizing, Consoling, Supporting: *"It will be all right....," "Things will change."*
11. Probing, Questioning, Interrogating: *"Why did you do it?" "Who have you been talking to?"*
12. Distracting, Diverting, Kidding: *"Let's not talk about it now." "Let's do something, and you'll forget about it."*

Listening is a basic conflict management skill. Accurate listening often makes the difference between ineffective and effective communications.

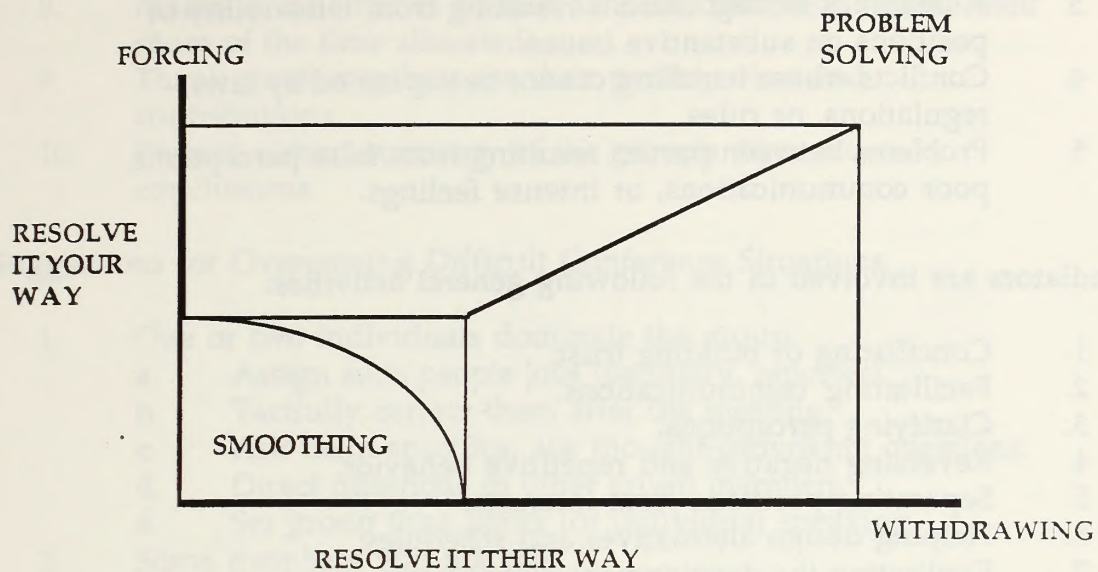
I. Negotiation and Resolving Differences

Negotiation is a discussion between parties with the goal of reaching agreement on issues that separate them. As a way to resolve differences, negotiation can contribute to a project's success.

The following are some guidelines for negotiation :

1. Prepare. Do your homework. Know what outcome you want and why. Find out what outcome the other party wants.
2. Minimize perceptual differences. Your view may differ from the view of the other parties. Don't assume that you know their view.
3. Listen. Listen actively with equal sharing of time.
4. Take notes. Summarize agreements in a memo.
5. Be creative. Explore different and unusual ways to solve problems.
6. Help the other party. Recognize that the other party's problem is yours as well and that support is needed from both parties to resolve the problem.
7. Make trade-offs. Avoid giving something for nothing.
8. Be quick to apologize. An apology is the quickest way to de-escalate negative feelings.
9. Avoid ultimatums. Ultimatums require the other party to either surrender or fight it out.
10. Set realistic deadlines. Both sides must be economical in their use of time.

What is best for one may not necessarily be best for others. Differences can be resolved either my way, your way, or our way. The following illustration symbolizes conflict handling in a two-party conflict.



CONFLICT HANDLING- TWO PARTY CONFLICT

Where:

Smoothing is the playing down of the differences between two groups and concentrating on the strong points of agreement.

Withdrawal occurs when one or both sides withdraw from conflict.

Forcing is the use of power to direct the solution in a win-lose agreement.

Compromising is the bargaining and searching for solutions that bring some degree of satisfaction to the parties in a dispute.

Confrontation is a situation in which affected parties face the conflict and directly work through their disagreements.

J. Mediation

Mediation is the intervention of an impartial third party, who has no decision making power, into a dispute or negotiation to help reach a mutually acceptable settlement. Mediation is a voluntary process. The mediator's function is to assist the parties in developing a resolution procedure that will let them satisfy their interests.

Conflicts where a mediator may be needed include the following:

1. Situations where the number of issues is so great that parties cannot organize them.
2. Disputes involving so many parties that the conversation between parties is cumbersome.

3. A deadlock in negotiations resulting from inflexibility of positions on substantive issues.
4. Conflicts whose handling cannot be explained by laws, regulations, or rules.
5. Problems between parties resulting from false perceptions, poor communications, or intense feelings.

Mediators are involved in the following general activities:

1. Conciliating or building trust.
2. Facilitating communications.
3. Clarifying perceptions.
4. Reversing negative and repetitive behavior.
5. Separating positions from interests.
6. Helping design alternatives and schedules.
7. Facilitating the development of processes.

A flock of sheep led by a lion will prevail over a herd of lions led by a sheep

K. Panels and Conferences

Often to explain and involve the public in information transfer, one may have to serve as lead on panels and conferences. The following are some suggestions for panel leaders.

Suggestions for Leading Panels

1. Coordinate the panel process rather than the content.
2. Control discussion periods only enough to
 - a. Keep it going progressively.
 - b. Keep it from wandering too far from the central subject.
 - c. Avoid emotional argument or bitter controversy.
 - d. Keep a few people from monopolizing the talk.
 - e. Reach some adequate conclusion or goal.
3. Be alert to the group's reactions, mood, and temper.
4. Keep prejudices to yourself.
5. Preserve an atmosphere of informality
6. Repeat questions so the entire group knows what was asked.
7. Show appreciation for each panel member's contribution without necessarily agreeing or disagreeing.

8. Maintain timeframes so that all panel members receive their share of the time allocated.
9. Thank panel members for their participation and contributions.
10. Present a short summary of the group's discussion or conclusions.

Suggestions for Overcoming Difficult Conference Situations

1. One or two individuals dominate the group.
 - a. Assign such people jobs (secretary, reporter).
 - b. Tactfully correct them after the meeting.
 - c. Ask them specifics; ask thought-provoking questions.
 - d. Direct questions to other group members.
 - e. Set group time limits for individual speaking.
2. Some members will not talk.
 - a. Ask them for their opinion.
 - b. Direct a few easy questions their way.
 - c. Get other members of the group to draw them out.
 - d. Avoid embarrassing them in any way.
3. Apparent lack of interest.
 - a. Shift the attack on the problem.
 - b. Change to another device.
 - c. Break into subgroups
 - d. Take a break.
4. Discussion drifts to irrelevant matters.
 - a. Summarize and draw discussion back to the subject.
 - b. Ask questions relating to the problem.
 - c. Cite cases or illustrations relating to the subject.
5. Conflict occurs.
 - a. Ask people to specify, not to generalize.
 - b. Have people locate areas of disagreement, classify in order of hostility, and then take those of least difficulty and work toward those of greater conflict.
6. Leader selects the wrong device-it doesn't work.
 - a. Stop at once.
 - b. Summarize discussion thus far.
 - c. Try another device, transferring material.

L. How To Convince Your Boss

If your boss needs to be convinced of a new idea, you might consider the following:

1. Shape your idea so that it can be approved by your immediate boss and not "bucked" upstairs.
2. Discuss the idea with your peers and others who might be affected.
3. Find something in BLM manuals or policy that will support what you want to do.
4. Explain how the change will help the organization get where it wants to go.
5. Show how the change will make the boss look good.
6. Use illustrations and examples to persuade.
7. Use BLM jargon and terms that are hot buttons in the organization. Relate to key goals and objectives.

Another way to influence your boss is to develop techniques of persuasion that are influential but avoid the hardsell or adversary approach. One could, for example, use the influence model. Using some of the skills identified earlier, it is important to be prepared to continue the discussion after you have ask for a reaction. To find the true source of resistance you need to be able to ask questions and remain silent to give the other person time to think.

The use of open ended questions can be useful when the other person raises an objection to a proposal. Instead of trying to counter the objection, one might ask open ended questions which cannot be easily answered "yes" or "no." Typically, open ended questions begin with the words like "How...","Where...","What...,"and "When...," Questions which begin with these words invite the other person to discuss their feelings or experiences on the subject at hand.

Step One: Preparation
 Step Two: Presentation
 Step Three: Ask for Reaction

IF NO

- (a) Explore the differences
- (b) Sharpen the differences
- (c) Integrate the differences
- (d) Obtain agreement

IF YES

Step Four: Nail down the next step.
 Step Five: Reinforce the user's decision.
 Step Six: Leave

M. Negative Thinkers

Because they have limited control over the selection of team members, project managers must often deal with "negative thinkers" assigned to the team. These individuals often have the following behavioral traits:

1. Egotism. Negative thinkers tend to be argumentative and won't hesitate to insult anyone who does not agree with them. Their objective is to elevate their own positions by lowering the positions of others.
2. Perfectionism. Negative thinkers view the world in absolute terms. Everything is either right or wrong, good or bad. This view requires them to go to extreme lengths to achieve perfection, ignoring the fact that most decisions are compromises among performance, cost, and schedule.
3. Procrastination. Managing time effectively conflicts with the negative thinker's desire for perfection. Therefore, every deadline becomes a last-minute panic, and most deadlines tend to be missed.
4. Distraction. Taking off on tangents not only assists negative thinkers in their quest for perfection, it also helps them avoid completing assignments.

Here is some advice on how negative thinkers operate and how you can harness their competitive spirit and energy:

1. Don't allow yourself to be drawn into arguments about details. Acknowledge minor problems, but confine the discussion to overall project objectives.
2. Don't assign negative thinkers to tasks that require simple and quick solutions. They will perform much better when the emphasis is on attention to detail.
3. Handled correctly, negative thinkers can be useful assets. Their attention to detail may often uncover defects that others have overlooked. But realize that negative thinkers are a luxury, and you can't afford to have too many of them around.
4. Help change the negative thinker's style by pointing out the results of actions you feel were deliberately destructive.

APPENDICES

The following Appendices are suggested formats

Appendix A

District Manager's Concept of an Activity Plan

Memorandum

To: State Director
From: District Manager
Subject: Concept of Activity Plan

1. Goal/Objectives
Relationship to MFP/RMP
2. Expected Results
Purpose of effort
Expected end product
3. Management Benefits Anticipated
4. Coordination Needs
Internal
External (include public involvement plan)
5. Team Members and Assignments
6. Schedule
7. Estimated Funding Requirements
W/Ms

Sub-Activity

Submitted by:	Date
Project Leader_____	_____
Approved by:	
Area Manager_____	_____
Approved by:	
District Manager_____	_____
Concurrence:	
State Director_____	_____

Appendix B

MY "TO DO" LIST

DAY

DATE

Time

My Work

Personal Responsibilities

"Me" Time

Appendix C

AGENDA

Name of group	Date
Title of meeting	Starting Time
Meeting called by	Ending Time
Place	
Meeting Type	Background
Materials needed	

Desired Outcomes

Chairperson
Decision Making Method

Facilitator	Final Decision Maker
Recorder	Please Bring
Group Members	

Special Notes

Observers

Resource Persons

Order of Agenda Items	Persons Responsible	Process	Time
Allocated			

Appendix D

GROUP MEMO

Name:

Date:

What happened & how

Decision/Action Items:

Next Steps:

This group memo is my interpretation of what happened at this meeting. If you would like to correct my interpretation, make an addition, consult the original group memory, or receive a transcribed copy of the group memory, please call. For more information concerning the objectives of the meeting and who attended it, see the attached agenda.

Recorder

Appendix E

Managers are asked to solve a wide range of problems, and one of the staff's major functions is to assist the manager in selecting and executing effective solutions to these problems. To obtain an accurate picture of the problem, a staff study is prepared to research the problem area. The purpose of this study is to determine the key issue and recommend effective action on the basis of relevant facts and an informed discussion of alternative solutions.

The attached items provide general format guidance and an outline of a basic staff study.

The Staff Study

A. Actions Before Writing the Staff Study

1. Analyze the audience. You usually solve problems dropped on you by the hierarchy. Sometimes you generate your own areas or subjects that call for analysis. In any case, political and operational constraints will affect your problem solving process. Do some reflective thinking about the environment you're operating in.
2. Limit the problem. Restrict the problem to a manageable size by fixing the who, what, why, and how of the situation. Eliminate unnecessary concerns.
3. Analyze the whole problem. Do the parts suggest other problems that need separate handling? Or do the parts relate so closely to the whole situation that you need only one approach?
4. Gather data. Collect all information pertinent to the problem.
5. Evaluate your information. Is the information from reliable witnesses? Is it from qualified authorities?
6. Organize your information. One way to organize information is to place it under headings titled facts, assumptions, and criteria.

Facts should be just that, not opinions or assertions. They must be verifiable and directly bear on the problem.

Assumptions are important because they are always necessary. To reduce a research project to manageable size, you usually must accept

certain things as being true, even if you are not absolutely sure that they are. The validity of your assumptions usually has a great deal to do with the validity of your conclusion. If you feel that the assumptions are unrealistic, make whatever assumptions you feel are correct, and try to judge the effect of these assumptions on the study's conclusions. Sometimes a logical study fails because the assumptions are incredibly weak or simply unsupportable.

Criteria are standards, requirements, or limitations used to test possible solutions.

7. List possible solutions. Approach the task of creating solutions with an open mind. Develop as many solutions as possible.

8. Test possible solutions. Test each solution by using criteria formed while gathering data. Weigh one solution against another after testing each. Be sensitive to your personal biases and prejudices. Strive for professional objectivity.

9. Select final solution. Select the best possible solution--or a combination of the best solutions--to fit the mission. Possible solutions include

- Single best possible solution. This one is basic and most commonly used. You select the best solution from several possible ones.

- Combination of possible solutions. You may need to combine two or more possible solutions for your best possible solution.

- Single possible solution. At times, you may want to report on only one possible solution.

B. Staff Study Format

Two elements should be incorporated into BLM staff studies. These are the Transmittal Cover Page and the Discussion Page(s). These formats are suggested as a method to prepare staff studies.

STAFF STUDY

1. Transmittal Cover Page

a. Heading - Use the memo format.

b. Subject - The subject matter is brief but sufficient to facilitate filing and reference.

c. Introduction and Purpose - Used to clarify the problem(s) or to limit the scope, and should be brief and not include discussion material.

d. Recommendation/Action - Used if a staff recommendation is needed. It consists of the recommended action and signature boxes for concurrence, nonconcurrence, and comments.

e. Distribution - Used if sent to other offices.

2. Discussion page (s)

a. Situation or Problem - State the situation or problem in concise, factual, and specific terms. This is a crucial step to clearly define the extent of the problem. Beginning with an infinitive, specify the general purpose of the study. For example; to discuss to recommend . . . or how can

b. Forcing Events - Describe why the study is needed and provide facts that concern the situation or problem.

c. Decision Required - Establish the kind of decision (e.g., concurrence, approval, action) to be made, who should make it, and kinds and types of approvals. Include the proposed or preferred alternative here. Reduced to a single concise statement permitting approval or disapproval by the approving authority, the decision should be included as the recommended action on the transmittal cover page.

d. Alternatives Considered - The alternatives considered are listed in this section. These alternatives are acts, plans, or program responses that if implemented could solve the problem or situation. Avoid setting up inappropriate or weak alternatives that can be demolished in favor of a preconceived conclusion. At the least, alternatives to consider are (1) the status quo, (2) reduced action, and (3) enhanced action. Generally, this section should be the most creative, including as many solutions as can be conceived.

e. Discussion and Analysis - Before the alternatives are analyzed, a review must be made to reject unsuitable alternatives or solutions. This review is conducted by rejecting solutions that, on the basis of data and forcing events, cannot solve the problem. Also consider whether each suitable solution is feasible and acceptable. Feasible solutions can be implemented with existing resources. Acceptable solutions are worth the cost or risk of implementing them.

(1.) Alternative Comparison- The analysis then should evaluate and compare the advantages of each suitable alternative. If problems are not susceptible to a simple advantage/disadvantage dichotomy, other evaluation techniques must be used, such as scaled or weighed

values; degrees of relative importance, probability factors; questioning the effects of doing or not doing; benefit or costs; or impacts of each alternative on workmonths, positions, and funding. What are the pros and cons of each alternative in addressing or solving the problem?

The analysis then should compare each alternative to one another to gain highlights of the differences among alternatives. Both the analysis and comparison can be summarized in a table or in any other manner that clearly separates the alternatives and analysis.

(2.) Conclusion- A discussion should capsule the alternative analysis, but any more detailed comparison should be placed in an appendix. The discussion should culminate in a concise conclusion that should not be a restatement but a solution logically derived from the analyses.

3. Appendix - Detailed background discussion (bibliographies, persons consulted, and references) should be shown in an appendix rather than in the discussion section.

Appendix F

FORMAL TALKING PAPER FORMAT

PROBLEM

Statement or description of topic. Type "Problem" three lines from title.

BACKGROUND

A summary of what has happened to date. Block paragraph(s).

DISCUSSION

A summary of what remains to be done. Indented, numbered paragraphs.

1. There are formal and informal talking papers. Formats are not universal, but this is a sample of a formal talking paper.
2. Prepare on 8- by 10-inch plain bond paper.
3. Center the subject or title in underscored capital letters 1 inch from the top of the page.
4. Use 1-inch margins on top, right, and bottom of page; use 1-inch margin on the left.
5. Use suitable language to permit use of the paper for oral delivery without considerable paraphrasing, deletion, and substitution. Write talking papers in a brief, telegraphic style.
6. Formal talking papers normally contain the five unnumbered headings you see underlined.
7. Talking papers are written briefs prepared to jog the memory of managers during oral presentations; they are based on the assumption the intended user has knowledge of the subject. They may be used in conjunction with a background paper when detailed background on a subject is needed.

CONCLUSION

Talking papers are outline guidance papers concisely stating facts and giving a series of reminders.

RECOMMENDATION

Talking papers should

1. Point out areas of disagreement.
2. Include areas of agreement.
3. Be limited to as few pages as possible.

Appendix G

Project Evaluation Form

1. How close to scheduled completion was the project actually completed?
2. What did we learn about scheduling that will help us on our next project?
3. How close to budget was the actual cost?
4. What did we learn about budgeting that will help us on our next project?
5. Upon completion, did the project output meet specifications without more work?
6. What did we learn about specifications that will help us on our next project?
7. What did we learn about staffing that will help us on our next project?
8. What did we learn about monitoring performance that will help us on our next project?
9. What tools and techniques were developed that would be helpful on our next project?
10. What recommendations do we have for future research and development?
11. If we had the opportunity to do the project over, what would we do differently?

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"There is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things."

Niccolo Machiavelli

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